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Ithaca, New York

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Collection of Entomopathogenic Fungal Cultures

ARS Catalog of Strains

In cooperation with the USDA-APHIS
National Biological Control Institute

Abstract

Humber, Richard A. 1992. Collection of Entomopathogenic Fungal Cultures: Catalog of Strains, 1992. U.S. Department of Agriculture, Agricultural Research Service, ARS-110, 177 pp.

This is a catalog to approximately 3,700 fungal cultures from more than 72 countries. The cultures are held in the ARS Collection of Entomopathogenic Fungi (ARSEF), an internationally known research resource for the fungal pathogens of invertebrates. In addition to listing the cultures by species, the catalog includes five indices listing host by fungus, fungi by host and location, geographic origin of fungi, alternate collections, and ARSEF accession number. Also included are instructions for ordering fungal strains and brief explanations of free diagnostic, exchange, and deposition services.

Keywords: Catalogs, entomopathogenic fungi, fungi.

Mention of trade names of commercial products in this publication is solely for the purpose of providing information and does not imply recommendations by the U.S. Department of Agriculture.

Copies of this publication may be purchased from the National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161.

ARS has no additional copies for free distribution.

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Acknowledgments

The body and indices of this catalog are reproductions of direct output from a customized data base management application that is used for all aspects of recordkeeping for the ARSEF culture collection.

Sincere thanks to Timothy S. Larkin for his indispensable role in implementing this collection management application and to Mary-Lynn Cummings for her fine-tuning of the data base design and her diligence in entering, verifying, and rectifying the information in the data base. Without their skills and input, this wholly revised catalog would not have been possible.

COLLECTION OF ENTOMOPATHOGENIC FUNGAL CULTURES

ARSEF Catalog of Strains

Richard A. Humber

History and Purpose of the Collection

The goal of the ARS Collection of Entomopathogenic Fungi (ARSEF) is to provide fundamental support for basic and applied research on the fungal pathogens of invertebrates. Since its establishment in the early 1970's, this collection has served as a general research resource for the isolation, collection, preservation, and distribution of fungal strains from insects, other arthropods, and nematodes. Emphasis has always been placed on acquiring and distributing strains under active study for use as potential biological control agents. Basic research associated with the collection includes fungal systematics, fungal cytology, pathobiology, and methodology for fungal cryopreservation. The culture collection and its associated collection of microscope slides and herbarium specimens provide invaluable support for taxonomic research on and the diagnoses of fungal pathogens of invertebrates. Identification services for specimens and cultures have always been available free of charge to any laboratories requesting them.

We strive to provide users with pure and accurately identified fungal cultures. Uncertainties about strain identifications not stated in this catalog will be communicated to culture recipients. The curator of the collection welcomes all correspondence about nomenclatural or taxonomic changes or possible misidentifications involving any ARSEF strains.

This culture collection began as Dr. Richard Soper's research collection at the ARS Plant, Soil, and Water Laboratory at the University of Maine at Orono (UMO). The original UMO prefix for these cultures was changed to the site-independent prefix RS for Richard Soper. In 1978, the ARS Insect Pathology Research Unit and its culture collection were relocated to be associated with the Insect Pathology Program of the Boyce Thompson Institute (BTI) in its new building on the Cornell University campus. The Insect Pathology Research Unit and some other small ARS

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RHUMBER@QMRELAY.MAIL.CORNELL.EDU (via Internet).

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units on the Cornell campus were united into the Plant Protection Research Unit (PPRU) in October 1985. After occupying transitional quarters, the PPRU insect pathology program and the culture collection moved in November 1990 into newly renovated laboratories in the U.S. Plant, Soil, and Nutrition Laboratory (across the street from the Boyce Thompson Institute).

The Plant Protection Research Unit owns and operates this culture collection; it is not now nor has it ever been owned or controlled by the Boyce Thompson Institute even though BTI administers the collection's sales account. This culture collection is one of the largest microbial germplasm collections in USDA-ARS, and PPRU is widely recognized for its active support and encouragement of global research on fungal pathogens of arthropods. The culture collection and its associated herbarium are respectively registered under the ARSEF acronym with the World Federation of Culture Collections' World Data Center on Microorganisms and with the International Association of Plant Taxonomists' *Index Herbariorum*.

Since 1977, all strains in the collection have been stored by immersion in liquid nitrogen at -196 °C, but limited dewar space will require shifting many strains from cryogenic to lyophil storage within the near future. Requests for cultures are filled with either live cultures on appropriate solid or liquid media or lyophil tubes (plus instructions for fungal recovery), depending on how the requested strain is stored.

Identifying and Acknowledging ARSEF Strains in Publications

We request that all publications using or referring to strains obtained from ARSEF acknowledge the U.S. Department of Agriculture, ARS Plant Protection Research Unit and state the ARSEF accession numbers of these strains. We would very greatly appreciate receiving reprints of all past, current, and future publications or even periodic notification about research in progress involving the use of ARSEF strains.

Accession numbers of strains from commercial culture collections such as the American Type Culture Collection (ATCC), Centraalbureau voor Schimmelcultures (CBS), CAB International Mycological Institute (IMI), and the University of Alberta Microfungus Collection (UAMH) are listed in this catalog only for the sake of providing complete information. **Representation of cultures obtained from ARSEF as ATCC, CBS, IMI or UAMH cultures is a**

violation of trademark laws; persons doing so are subject to prosecution. Cultures received from ARSEF should be referred to by their ARSEF numbers only.

Updated, Special, and Electronic Catalogs

All accession information for ARSEF cultures has been computerized. This catalog was generated directly from the data base. General catalog updates will be issued approximately every 2 years. Supplements listing cultures accessioned since the printing of the current catalog or special catalogs focusing on strains of particular fungal species or from particular hosts or geographic regions can be prepared on request.

The ARSEF catalog is not available in any electronic format directly readable by word processing or text editing software. Complimentary copies of the ARSEF data base or the customized application used to manage it or both can be obtained upon consultation with the curator of the ARSEF collection. This application program requires users to have access to either full or run-time versions of the 4th Dimension data base manager (Acius, Inc.) and an Apple Macintosh computer. Planning is under way to include accession information for ARSEF cultures in the computerized ARS Germplasm Resources in the Nation (GRIN) information network; this information should be available on-line after the activation of the newly revised GRIN-III system.

Depositing and Exchanging Cultures

The Plant Protection Research Unit encourages deposition of entomopathogenic fungal cultures with the ARSEF collection—particularly strains used in published studies—as well as of voucher and reference specimens to its herbarium. Depositors may reserve the right to limit redistribution of any culture deposited with ARSEF for specified times upon consultation with the curator. Depositors can receive subcultures of their own depositions at any time; these cultures do not affect any allowances of free cultures.

Exchanges of cultures between ARSEF and other research or general collections of fungal cultures are encouraged and are not subject to numerical limits.

Prior to shipping cultures from countries outside the United States, contact the curator to obtain the appropriate needed importation permit from the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

When sending cultures or specimens or both to ARSEF, it is very important to include as much of the following information as possible:

1. Scientific name (and taxonomic authority) of the fungus.
2. Common and scientific name (with taxonomic authority) of the host.
3. Order and family of the host. (**This is especially critical information.**)
4. Date and site of collection.
5. Name of collector.
6. Date and name of isolator.
7. Any collection, accession, or other identifier number(s) applied by the collector or sender.
8. Medium on which a culture is sent.
9. Any special requirements or conditions for growth (such as medium, temperature, pH).

Diagnostic Services for Cultures and Specimens

Specimens and cultures of unidentified fungi from invertebrates can be submitted to ARSEF for diagnosis. This service is an important function of the ARS Collections of Entomopathogenic Fungi and is provided without charge. Identifications and information about the disposition of specimens will be mailed to the sender.

Release of ARSEF Cultures From Containment or Quarantine

Neither the curator nor any employee of ARSEF or of the Plant Protection Research Unit is entitled to authorize the release of any culture it provides from laboratory containment or quarantine in the United States or elsewhere. Recipients of ARSEF cultures are responsible for obtaining appropriate and necessary permissions from or for providing official notifications to State and Federal regulatory agencies.

Ordering Information

All requests for isolates should be sent directly to the curator, ARS Collection of Entomopathogenic Fungal Cultures, U.S. Plant, Soil, and Nutrition Laboratory, Tower Rd., Ithaca, NY 14853-2901, USA; telephone: (607) 255-1276; fax: (607) 255-2459.

Academic, Government, and Other Nonprofit Institutions

5 or fewer isolates per order (up to 7 per calendar year) no charge

6 or more isolates per order (8 or more per calendar year)
US\$40 per strain

Users from nonprofit institutions can receive up to five isolates without charge in any 6-month period and up to seven cultures in any calendar year. Users requesting in excess of these limits will be charged at the rate of US\$40 per additional isolate requested. Commercially sponsored research programs undertaken by nonprofit institutions are charged at the commercial rate and are not subject to numerical limits. **Prices are subject to change without notice.**

Commercial and Industrial Institutions US\$75 per strain

Nonprofit institutions working on commercially sponsored contractual projects (such as screening programs) are charged at the rate of US\$75 per strain requested. There are no limits on the numbers of cultures that can be requested or shipped. **Prices are subject to change without notice.**

Commercial or industrial firms supporting research at the ARS Plant Protection Research Unit are entitled to free access to cultures pertinent to contracted projects; all other requests are charged at the current rate.

Terms of Shipment

Billings for isolates are issued through the Boyce Thompson Institute. We encourage prepayment for isolates. **Checks or money orders for strains must be made out to the Boyce Thompson Institute** but sent directly to the curator of the ARS Collections of Entomopathogenic Fungi. Consult the curator of the collections with questions about fees due for any particular shipment.

We request confirmation of receipt and viability of cultures shipped. Strains that are inviable upon receipt will be replaced.

ARSEF reserves the right to refuse to ship strains

- to recipients who cannot handle them with standard microbiological practices,
- to laboratories that cannot assure laboratory containment of isolates *except* after obtaining permissions from applicable State and Federal regulatory agencies,
- if use of routine mailing or shipping procedures cannot assure the receipt of viable cultures.

ARSEF, the ARS Plant Protection Research Unit, and the Boyce Thompson Institute are not liable for damages arising from the misidentification of strains.

Interpretation Of Strain Accession Data

The following examples provide a guide to the arrangement and interpretation of collection data included in this catalog.

Beauveria bassiana (Balsamo) Vuillemin

- 2484 SR Sánchez Peña (Trachym 1). *Atta mexicana* [Hymenoptera: Formicidae]. Dec 20 1986. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.

• 2484

ARSEF accession number. Dot indicates restricted redistribution status requiring consultation with ARSEF curator and possibly permission of depositor.

Depositor and depositor's reference or accession number.

Original host together with the host's order and family.

Date of accession or receipt.

Country of origin followed by the locality and state.

Limitation on restricted redistribution status.

SR Sánchez Peña (Trachym 1)
Atta mexicana [Hymenoptera: Formicidae]
Dec 20 1986
Mexico: El Fuerte, Sinaloa
Restricted until September 1994

Conidiobolus thombooides Drechsler

73 [CSIRO EM534; FPMI 28] RG Kenneth (3040)←ATCC (24419)←DM MacLeod ←G Thoizon. *Rhopalosiphum insertum* [Homoptera: Aphididae]. Rec'd Jan 18 1976. France: Val-de-Marne, La Varenne.

73

ARSEF accession number.

[CSIRO EM534; FPMI 28]

Depositor and depositor's reference or accession number.

RG Kenneth (3040)

Culture provenance: RG Kenneth obtained the culture

from ATCC, which obtained it from DM MacLeod, who obtained it from G Thoizon.

← ATCC (24419) ← DM MacLeod

← G Thoizon

Original host together with the host's order and family.

Date of receipt.

Country of origin followed by the locality and region.

Rhopalosiphum insertum [Homoptera: Aphididae]
Rec'd Jan 18 1976
France: Val-de-Marne, La Varenne

Hirsutella thompsonii Fisher

137 [ATCC 24874; CBS 952.73] CW McCoy (Fla. 68). *Phyllocoptuta oleivora* [Acari: Eriophyidae]. Jan 1 1970.
USA: Orlando, Florida.

137

ARSEF accession number.

[ATCC 24874; CBS 952.73]

Depositor and depositor's reference or accession number.

CW McCoy (Fla. 68)

Original host together with the host's order and family.

Phyllocoptuta oleivora [Acari: Eriophyidae]

Date of accession or receipt. Note: January 1 is a default date if an exact date with a year is unrecorded; the first day of each month is a default date if no specific day within a month is recorded.

Jan 1 1970

Country of origin followed by the locality and state.

USA: Orlando, Florida

Abbreviations

ARSEF	ARS Collection of Entomopathogenic Fungi, USDA-ARS Plant Protection Research Unit, U.S. Plant, Soil, and Nutrition Laboratory, Tower Road, Ithaca, New York, 14853–2901, USA	DAOM	National Mycological Herbarium, Centre for Land and Biological Resources Research, Agriculture Canada, Central Experimental Farm, Ottawa, Ontario, K1A 0C6, Canada
ATCC	American Type Culture Collection, 12301 Parklawn Drive, Rockville, Maryland 20852, USA	DAR	New South Wales Department of Agriculture, Rydalmerle, NEW, Australia
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Proyecto UIP, Apdo. Postal 7170, Turrialba, Costa Rica.	FPMI	Forest Pest Management Institute, 1219 Queen Street East, Sault Ste. Marie, Ontario P6A 5M7, Canada
CBS	Centraalbureau voor Schimmelcultures, P.O. Box 273, 3740 AG Baarn, The Netherlands	GCRI	Institute for Horticultural Research (formerly, Glasshouse Crops Research Institute), Worthing Road, Littlehampton, W. Sussex BN17 6LP, England, UK
CCF	Culture Collection of Fungi, Department of Botany, Charles University, Prague, Czech and Slovak Federative Republic	HACC	Hindustan Antibiotics Ltd., Pimpri, Poona, India
CCFC	Canadian Collection of Fungus Cultures, Centre for Land and Biological Resources Research, Room 1015, K.W. Neatby Bldg., Ottawa, Ontario K1A 0C6, Canada	IMI	CAB International Mycological Institute, Bakeham Lane, Egham, Surrey TW20 9TY, England, UK
CDC	Centers for Disease Control, Atlanta, Georgia 30333, USA	INRA	Station de Recherches de lutte Biologique et Biocoenotique, INRA (Institut National de la Recherche Agronomique), La Miniére 78280 Guyancourt, France
CENARGEN	Centro Nacional de Pesquisa de Recursos Genéticos e Biotecnologia, S.A.I.N. Parque Rural, C.P. 102372, 70770 Brasilia, D.F., Brazil	IPLB	Unité de Lutte Biologique, Institut Pasteur, 28 Rue de Dr. Roux, 75724 Paris, France
CIRI	Corn Insects Research Unit, USDA-ARS, R.R. Box 45B, Ankeny, Iowa 50021, USA	IRRI	International Rice Research Institute, P.O. Box 933, Manila, Philippines
CNPAF	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Goiânia, Goiás, Brazil	KSU	Kansas State University, Department of Entomology, Manhattan, Kansas 66506, USA
CNPS	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Londrina, Paraná, Brazil	MAF	Ministry of Agriculture and Fisheries, Canterbury Agriculture and Science Centre, Ellesmere Junction Road, P.O. Box 24, Lincoln, New Zealand
CP	Strains isolated during joint U.S.-Brazil program studying insect pests of cowpeas; Title XII program funded by U.S.-AID	MU	Miami University, Willard Sherman Turrell Herbarium, Department of Botany, 79 Upham Hall, Oxford, Ohio 45056, USA

NCTC	National Collection of Type Cultures, Public Health Laboratory Service, 61 Colindale Avenue, London NW9 5HT, England, UK
NRRL	Agricultural Research Service Culture Collection, National Center for Agricultural Utilization Research (formerly, Northern Regional Research Center), USDA-ARS, 1815 N. University, Peoria, Illinois 61604, USA
PSU	The Pennsylvania State University, 211 Buckhout Laboratory, University Park, Pennsylvania 16802, USA
QEC	Queen Elizabeth College, University of London, Department of Biology, Campden Hill Road, London W8 7AH, England, UK
QM	U.S. Army Natick Laboratories (formerly, Quartermaster Research and Development Center), Natick, Massachusetts. Note: This collection has been transferred to NRRL.
RSA	Rancho Santa Ana Botanic Garden, 1500 North College Avenue, Claremont, California 91711, USA
SBI	Sugarcane Breeding Institute, Indian Council of Agricultural Research, Coimbatore 641 007, Tamil Nadu, India
UAF	University of Arkansas, Department of Entomology, 321 Agriculture Building, Fayetteville, Arkansas 72701, USA
UAMH	University of Alberta Microfungus Collection, Devonian Botanic Garden, University of Alberta, Alberta T6G 2H7, Canada

Fungal Cultures

Acremonium berkeleyanum *Aschersonia aleyrodis*

Acremonium berkeleyanum (Karsten) Gams [Hymomycetes]

2067 [ATCC 64865] GC Carroll (3(RSRS-0/34)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Acremonium furcatum F&R Moreau ex Gams [Hymomycetes] .

1372 TJ Poprawski (083). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 21 Jun 83. France: Choisy-en-Brie, Haute-Savoie.

Acremonium roseum (Oudemans) Gams [Hymomycetes]

1964 [CNPAF 85-7-30; CP 190] JC Lord and BP Magalhães. *Pseudoplusia ni* [Lepidoptera: Noctuidae]. 30 Jul 85. Brazil: Nordeste.

Acrodontium crateriforme (Van Beyma) de Hoog [Hymomycetes]

2070 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Akanthomyces gracilis Samson & Evans [Hymomycetes]

2910 CBS (741.73). *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana.

2919 CBS (141.73) ← RA Samson. *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana: Atewa Forest Reserve.

Aphanocladium album (Preuss) Gams [Hymomycetes]

1329 TJ Poprawski (085). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 5 Jun 83. France: Chichery.

2161 BN Muthappa (PNG 12717). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

3680 LS Osborne. *Bemisia tabaci* [Homoptera: Aleyrodidae] on tomato. Rec'd Apr 92. USA: Apopka, Florida.

Aphanomyces sp. [Oomycetes: Saprolegniales]

2005 [ATCC 58381] BA Jaffee (Lag3). *Xiphinema americanum* [Dorylaimida: Longidoridae]. 9 Jul 84. USA: Adams County, Pennsylvania.

Arthrobotrys dactyloides Drechsler [Hymomycetes]

2934 [ARSEF 3353 (deaccessioned)] BA Jaffee (Ad3). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field #3, Solano County, California.

3371 KT Hodge ← P John (RhΔ). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

3372 KT Hodge ← P John (Rh2). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

3373 KT Hodge ← P John (74⊖). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

3733 BA Jaffee (CR106). Rec'd 1 Jun 92. USA: Merced County, California.

Arthrobotrys musiformis

3730 BA Jaffee (MN101). Rec'd 1 Jun 92. USA: Merced County, California.

Arthrobotrys oligospora Fresenius [Hymomycetes]

3347 BA Jaffee (A01). Soil. 1981. USA: Edgefield City, South Carolina.

3732 BA Jaffee (MN103). Rec'd 1 Jun 92. USA: Merced County, California.

Arthrobotrys oligospora var. *oligospora* Fresenius [Hymomycetes]

3369 KT Hodge ← P John (Ar□). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

3370 KT Hodge ← P John (Ar2). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

Aschersonia sp. [Hymomycetes]

3014 SR Sánchez Peña. [Homoptera: Aleyrodidae] on *Citrus* sp. (orange) leaves. 26 May 90. Mexico: orange (Citrus) orchard, Gómez Farias, Tamaulipas.

3015 SR Sánchez Peña. Nymph, [Homoptera] on *Ficus* sp. 26 May 90. Mexico: orange (Citrus) orchard, Gómez Farias, Tamaulipas.

Aschersonia aleyrodis Webber [Hymomycetes]

341 I Majchrowicz. Larva, *Dialeurodes ?citri* [Homoptera: Aleyrodidae] on citrus. Oct 78. USA: Lake Alfred, Florida.

342 I Majchrowicz. Larva, *Dialeurodes ?citri* [Homoptera: Aleyrodidae] on citrus. Oct 78. USA: Lake Alfred, Florida.

430 RS Soper. [Homoptera: Aleyrodidae] on citrus leaves. 9 Jan 80. USA: Lake Alfred, Florida.

432 RS Soper. [Homoptera: Aleyrodidae] on citrus leaves. 9 Jan 80. USA: Zephyr Hills, Lake Alfred, Florida.

992 J Aoki (Ash. 1) ← K Oshima ← N Oho. *Dialeurodes citri* [Homoptera: Aleyrodidae]. Rec'd 7 Nov 83. Japan: Saga Prefecture.

2154 MC Rombach (220386-1). *Aglaia odoratissima* [Homoptera: Aleyrodidae]. 22 Mar 86. Indonesia: Bogor Botanical Gardens, Bogor, Jawa Barat, Java.
2268 JJ Fransen ← RA Samson. *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. Rec'd 14 Oct 86. Netherlands: Baarn, Utrecht.

Aschersonia goldiana Saccardo & Ellis
[Hyphomycetes]

343 I Majchrowicz. Larva, *Dialeurodes ?citri* [Homoptera: Aleyrodidae] on citrus. Oct 78. USA: Lake Alfred, Florida.
431 RS Soper. [Homoptera: Aleyrodidae] on citrus leaves. 9 Jan 80. USA: Zephyr Hills, Lake Alfred, Florida.

Aschersonia inasperata Humber & Rombach
[Hyphomycetes]

Unpublished new species. Cultures produce both the *Aschersonia* state and a synanamorph, *Hirsutella inasperata* (q.v.).

2351 [ARSEF 2397] MC Rombach (131286-19). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Philodendron* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.
2356 [ARSEF 2391 (never frozen)] MC Rombach (201286-8). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Maoutia* sp. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
2357 [ARSEF 2392 (never frozen)] MC Rombach (301286-7). *Dialeurodes citri* [Homoptera: Aleyrodidae]. 30 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
2358 [ARSEF 2393 (never frozen)] MC Rombach (301286-8). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Maoutia* sp. 30 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
2397 [ARSEF 2351] MC Rombach (131286-19). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Philodendron* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.
2398 MC Rombach (131286-13). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Philodendron* sp. 13 Dec 86. Indonesia: Gunung Merapi, Yogyakarta, Java.

Aschersonia turbinata (Berkeley) Petch
[Hyphomycetes]

1030 [GCRI 67-82] RA Hall. [Homoptera]. 1982. Colombia.

Ascospaera aggregata Skou
[Plectomycetes: Ascospaerales]

689 JD Vandenberg (2). *Megachile rotundata* [Hymenoptera: Megachilidae]. Sep 81. USA: Lovelock, Nevada.
690 JD Vandenberg (3). *Megachile rotundata* [Hymenoptera: Megachilidae]. Sep 81. USA: Ontario, Oregon.

Ascospaera apis (Maassen ex Claussen) Olive & Spiltoir
[Plectomycetes: Ascospaerales]

691 JD Vandenberg (4). *Apis mellifera* [Hymenoptera: Apidae]. Jun 79. USA: Corvallis, Oregon.
692 JD Vandenberg (5). *Apis mellifera* [Hymenoptera: Apidae]. Jul 81. USA: Corvallis, Oregon.
2683 SR Sánchez Peña. *Apis mellifera* [Hymenoptera: Apidae]. 6 Aug 89. USA: Lubbock, Texas.

Ascospaera atra Skou & Hackett
[Plectomycetes: Ascospaerales]

693 JD Vandenberg (6). *Megachile rotundata* [Hymenoptera: Megachilidae]. Jun 79. USA: Ontario, Oregon.

Ascospaera major (Prokschl & Zobl) Skou
[Plectomycetes: Ascospaerales]

694 JD Vandenberg (7) ← M Christensen ← JP Skou. [Hymenoptera]. 1970. Denmark.

Ascospaera prolierda Skou
[Plectomycetes: Ascospaerales]

695 JD Vandenberg (8) ← M Christensen ← JP Skou. *Megachile centuncularis* [Hymenoptera: Megachilidae]. 1970. Denmark.
696 JD Vandenberg (9) ← M Christensen ← JP Skou. *Megachile rotundata* [Hymenoptera: Megachilidae]. Jul 81. Lab. manipulation.

Aspergillus sp.
[Hyphomycetes]

1152 TJ Poprawski (83-15). Adult, *Melanoplus* sp. [Orthoptera: Acrididae]. 29 Sep 83. Spain: Córdoba.
2765 GW Riethmacher (A3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 13 Apr 89. Philippines: La Trinidad, Benguet.
2817 GW Riethmacher (E1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 89. Philippines: La Trinidad, Benguet.
2820 GW Riethmacher (E7). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 89. Philippines: La Trinidad, Benguet.
3048 MS Goettel (5B). Vegetation. Jul 90. Mali: Mordiah. Eurotium state may also be present.
3176 GW Riethmacher (B22). Soil, using *Tenebrio molitor* [Coleoptera: Tenebriidae] as a trap. 22 Dec 89. Philippines: Cavinti, Laguna.
3195 GW Riethmacher (B47b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebriidae] as a trap. 6 Jun 90. Philippines: Villasis, Pangasinan.
3698 LA Lacey (Ma16). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 8 Apr 92. India: Padappai.

Fungal Cultures

Aspergillus flavus Link:Fries [Hymomycetes]

1003 J Aoki (Asp. 11). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.

1010 J Aoki (Asp. 26). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.

2157 BN Muthappa (PNG 12713). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

2158 BN Muthappa (PNG 12714). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

2159 BN Muthappa (PNG 12715). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

2818 GW Riethmacher (E4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 89. Philippines: La Trinidad, Benguet.

2833 AE Hajek ← K Tatman (MD19#14). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 89. USA: Baltimore County, Maryland.

3144 MS Goettel. *Neobullieria citellivora* [Diptera: Sarcophagidae]. 2 Nov 90. Canada: Picture Butte, Alberta.

3430 K Ostrovska (52). [Diptera: Bombyliidae]. 29 Sep 91. Costa Rica: La Selva.

Aspergillus niger van Tieghem [Hymomycetes]

3143 MS Goettel (3B). [Orthoptera]. 17 Jul 90. Mali: Mordiah.

Aspergillus nr. parasiticus Speare [Hymomycetes]

2173 MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 86. Indonesia: Baritiwurung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.

Aspergillus ochraceus Wilhelm [Hymomycetes]

3325 C Castillo. *Ixodes scapularis* [Acari: Ixodidae]. Rec'd 8 May 91.

Basidiobolus sp. [Zygomycetes: Entomophthorales]

270 RK Benjamin ← CW Emmons (2501). *Bufo marinus* (toad) dung. Rec'd Nov 78. USA: NIH lab, Bethesda, Maryland.

271 RK Benjamin ← CW Emmons (2502) ← Lie-Kian-Joe. Frog dung. Rec'd Nov 78. ?Indonesia.

273 RK Benjamin ← CW Emmons (2507) ← Deshpande. *Homo sapiens*. Rec'd Nov 78.

Aspergillus flavus *Basidiobolus microsporus*

2048 D TeStrake (TL-10). Lizard dung. Rec'd 25 Nov 85. USA: Tampa, Florida.

2049 D TeStrake (TL-12). Lizard dung. Rec'd 25 Nov 85. USA: Tampa, Florida.

2050 D TeStrake (TL-13). Lizard dung. Rec'd 25 Nov 85. USA: Tampa, Florida.

2051 D TeStrake (TT-5). Toad dung. Rec'd 25 Nov 85. USA: Tampa, Florida.

2052 D TeStrake (TT-9). Toad dung. Rec'd 25 Nov 85. USA: Tampa, Florida.

Basidiobolus haptospora Drechsler

[Zygomycetes: Entomophthorales]

Synonym: *Basidiobolus meristosporus* Drechsler. *B. haptosporus* is a probable synonym of *B. ranarum*.

Caution: This species can cause human mycoses; most strains can be demonstrated to survive temperatures ≥37°C. Exercise caution to avoid inhalation of conidia or contact with cuts or abrasions.

261 [NRRL 1232; RSA 228] RK Benjamin ← CW Emmons. 4-year-old male, *Homo sapiens*. Rec'd Nov 78. Indonesia.

262 [RSA 964] RK Benjamin. Oak leaf mold. 10 May 60. USA: Rancho Santa Ana Botanical Garden, Claremont, California.

263 [RSA 1269] RK Benjamin. Lizard dung. 4 Apr 63. Mexico: La Suerte, Baja California.

264 [RSA 2252] RK Benjamin. Soil under Fremontodendron. Sep 76. USA: Rancho Santa Ana Botanical Garden, Claremont, California.

272 RK Benjamin ← CW Emmons (2505) ← Lie-Kian-Joe. *Homo sapiens*. Rec'd Nov 78. ?Indonesia. Human mycosis.

1347 S Balazy (1580b). [Diptera: Brachycera] attached to decayed wood in a brook. 11 Aug 83. Poland: Wielkopolski National Park.

Basidiobolus microsporus Benjamin [Zygomycetes: Entomophthorales]

265 [RSA 962] RK Benjamin. Lizard dung. 5 Apr 60. USA: 5 mi NW of Agua Caliente Hot Springs, San Diego County, California.

266 [RSA 977] RK Benjamin. Lizard dung. 22 Apr 60. USA: 1 mi E of Tecopa Pass, Inyo County, California. CULTURE EX TYPE.

267 [RSA 982] RK Benjamin. Duff under debris outside packrat nest. 23 May 60. USA: 10 mi W of Barstow, Iron Mountain, California.

268 [RSA 1737] RK Benjamin. Lizard dung. 6 May 62. USA: 10 mi S of Weldon, el. 3000 ft, Kern County, California.

269 [RSA 2088] RK Benjamin. Rodent dung. 29 Jul 74. USA: nr. Cajon Pass, San Bernardino County, California.

Basidiobolus ranarum Eidam

[Zygomycetes: Entomophthorales]

Possible synonyms: *Basidiobolus haptosporus* Drechsler,
Basidiobolus meristosporus Drechsler.

Caution: Strains of this species may be able to grow at temperatures $\geq 37^{\circ}\text{C}$ and may be regarded as potential mycotic agents for humans and other mammals. These strains should be safe in research and/or teaching laboratories with routine microbiological precautions; avoid inhalation of conidia or contact with open cuts or abrasions.

260 [RSA 334] RK Benjamin. Toad dung. 27 Apr 54. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
1139 M Shimazu (F-57). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Acc'd 3 Apr 84. Japan: Saitama Prefecture.
2787 M Blackwell. Lizard dung. Acc'd 16 Aug 89. USA: Baton Rouge, Louisiana.

Batkoia apiculata (Thaxter) Humber

[Zygomycetes: Entomophthorales]

The nuclei of this taxon stain well and have granular contents when mounted in aceto-orcein or other nuclear stains. This entomophthoraceous fungus has a morphologically similar aencylistaceous fungus, *Conidiobolus pseudapiculatus* (q.v.), whose nuclei do not stain well and do not have granular contents.

395 S Keller (35). Larva, [Hymenoptera]. 10 Aug 76. Switzerland.
919 [ARSEF 1661] S Keller (450). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
927 [ARSEF 1660] S Keller (449). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
1660 [ARSEF 927] S Keller (449). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
1661 [ARSEF 919] S Keller (450). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
3224 P Folker-Hansen (E and 020590). *Bradysia paupera* [Diptera: Sciaridae]. 2 May 90. Denmark.
3225 P Folker-Hansen (F and 040590). *Bradysia paupera* [Diptera: Sciaridae]. 4 May 90. Denmark.
3226 P Folker-Hansen (I and 080990). *Bradysia paupera* [Diptera: Sciaridae]. 8 Sep 90. Denmark.

Batkoia gigantea (Keller) Humber

[Zygomycetes: Entomophthorales]

214 S Keller (74). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 78. Switzerland.
215 S Keller (75). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 78. Switzerland.
403 [FPMI 768] S Keller (36). *Tipula paludosa* [Diptera: Tipulidae]. 8 Sep 76. Switzerland.

Batkoia major (Thaxter) Humber

[Zygomycetes: Entomophthorales]

1427 RS Soper (84528-1). [Homoptera: Aphididae]. 28 May 84. Yugoslavia: plum orchard, Zemun, Belgrade.
2936 H Firstencel. *Empoasca fabae* [Homoptera: Cicadellidae]. 5 Jan 90. USA: laboratory colony, Ithaca, New York.
3102 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field #6G, Catherine, New York.
3103 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 4 Sep 90. USA: laboratory colony, Ithaca, New York.

Beauveria sp.

[Hyphomycetes]

Almost all of the strains listed here closely resemble *B. bassiana* (or *B. brongniartii*) but were not so identified because of small (and possibly insignificant) differences in conidia size and/or shape.

590 JM Lenné. *Mocis* sp. [Lepidoptera: Noctuidae]. Rec'd 13 Apr 81. Colombia: Carimagua.
1040 J Aoki (Beau. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Suginami, Tokyo Prefecture.
1195 TJ Poprawski (001). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 18 May 83. Italy: Vetralla, Lazio.
1196 TJ Poprawski (002). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 20 May 83. Italy: Vetralla, Lazio.
1197 TJ Poprawski (004). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 20 May 83. Italy: Vetralla, Lazio.
1198 TJ Poprawski (005). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 20 May 83. Italy: Vetralla, Lazio.
1199 TJ Poprawski (013). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Manciano, Toscana.
1200 TJ Poprawski (014). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Manciano, Toscana.
1201 TJ Poprawski (023). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
1202 TJ Poprawski (024). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
1203 TJ Poprawski (025). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
1204 TJ Poprawski (026). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.

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1205 TJ Poprawski (027). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.

1206 TJ Poprawski (028). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.

1207 TJ Poprawski (030). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.

1208 TJ Poprawski (034). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Piancastagnaio, Toscana.

1209 TJ Poprawski (035). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 22 May 83. Italy: Acquapendente, Lazio.

1210 TJ Poprawski (037). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.

1211 TJ Poprawski (038). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.

1213 TJ Poprawski (046). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.

1214 TJ Poprawski (047). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.

1215 TJ Poprawski (049). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.

1216 TJ Poprawski (050). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.

1218 TJ Poprawski (051). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.

1219 TJ Poprawski (052). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.

1220 TJ Poprawski (057). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.

1221 TJ Poprawski (059). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.

1222 TJ Poprawski (060). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.

1224 TJ Poprawski (061). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.

1327 TJ Poprawski (082). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 83. France: Saint-Laurent, Vosges.

1681 M Shimazu (F-333). *Shirahoshizo insidiosus* [Coleoptera: Curculionidae]. 27 Jan 82. Japan: Takao, Tokyo Prefecture.

1685 M Shimazu (F-450). *Lachnostenra morosa* [Coleoptera: Scarabaeidae]. Acc'd 2 Nov 84. Japan: Ibaraki Prefecture.

1835 SB Alves (295). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 21 Jan 85. Brazil. .

2164 BN Muthappa (PNG 12723). [Homoptera: Membracidae]. Rec'd 12 May 86. Papua New Guinea.

2412 K Narayanan (9). *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. Acc'd 6 May 87. India.

2997 MS Goettel. *Vespula vulgaris* [Hymenoptera: Vespidae]. 24 Feb 90. Canada: Lethbridge, Alberta.

3289 J Gutierrez Samperio (5) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.

3510 I Quintela (VL1). Rec'd 13 Dec 91.

Beauveria amorpha (von Hoehnel) Samson & Evans [Hypomycetes]

1682 M Shimazu (F-357(11)). *Anomala cuprea* [Coleoptera: Scarabaeidae]. 20 Nov 80. Japan: Nagano Prefecture.

2251 IMI ← HC Evans (Ro 596). Adult, [Coleoptera]. Feb 80. Brazil: Belém, Pará.

2641 DW Roberts ← SB Alves (621). *Solenopsis* sp. [Hymenoptera: Formicidae]. Rec'd 23 Nov 88. Brazil: Alambari, São Paulo.

Beauveria bassiana (Balsamo) Vuillemin [Hypomycetes]

Major synonym: *Beauveria densa* (Link:Fries) Picard.

1 [ATCC 24318; FPMI 961] PW Schaefer. 1st instar larva, *Malacosoma americanum* [Lepidoptera: Lasiocampidae] on *Prunus maritima*. 18 Apr 72. USA: Chapin Beach, Dennis, Massachusetts.

149 M Wojciechowska (28). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 18 Jul 77. France.

150 M Wojciechowska (24). [Coleoptera: Elateridae]. Rec'd 18 Jul 77. France.

151 M Wojciechowska (17). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 18 Jul 77. France.

152 M Wojciechowska (310-76). *Pamphilius betulae* [Hymenoptera: Pamphiliidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.

153 M Wojciechowska (2-72). *Chrysopa* sp. [Neuroptera: Chrysopidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.

154 M Wojciechowska (51-75). *Pamphilius betulae* [Hymenoptera: Pamphiliidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.

155 M Wojciechowska (75-67). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.

156 M Wojciechowska (1092). [Hymenoptera: Ichneumonidae] parasitic on lepidopteran. Rec'd 18 Jul 77. Poland.

157 M Wojciechowska (1110). *Anthicus floralis* [Coleoptera: Anthicidae]. Rec'd 18 Jul 77. Poland.

158 M Wojciechowska (N-2). Soil. Rec'd 18 Jul 77. Poland.

159 M Wojciechowska (70). Rec'd 18 Jul 77. Czechoslovakia.

160 M Wojciechowska (72). Rec'd 18 Jul 77. Czechoslovakia.

201 JD Vandenberg. *Diabrotica undecimpunctata* [Coleoptera: Chrysomelidae] on greenbeans. 22 Oct 77. USA: greenhouse, Corvallis, Oregon.

220 Boverin formulation. Rec'd Jun 78. Commonwealth of Independent States.

252 C Madore. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 14 Sep 78. USA: greenhouse, Orono, Maine.

275 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

276 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

277 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

278 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

279 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

280 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

281 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

282 Single spore reisolate of ARSEF 252. 4 Dec 78. Lab. manipulation.

283 DW Roberts ← O Alyoshina. Single spore reisolate of Boverin formulation. 2 Dec 78. Commonwealth of Independent States.

284 DW Roberts (N-2) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

285 DW Roberts (1110) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

286 DW Roberts (BSS-1) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

287 DW Roberts (BSS-2) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

288 DW Roberts (BSS-3) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

289 DW Roberts (BSS-4) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

290 DW Roberts (BSS-5) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

291 DW Roberts (3T) ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

292 DW Roberts ← O Alyoshina. Single spore reisolate of Boverin formulation. Apr 78. Commonwealth of Independent States.

293 DW Roberts ← CW McCoy. [Coleoptera].

295 DW Roberts ← CW Emmons. 2 Nov 78.

296 DW Roberts (CLB-2) ← E West-Davidson. 1967. USA: Ohio State University, Ohio.

299 RC Hedlund. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 78. Rumania: 1 km W of Pasarea on Rt. 3, Pasarea, Munteniae.

300 RS Soper. *Nysius vinitor* [Hemiptera: Lygaeidae] on sunflower. 17 Jan 79. Australia: Tamworth, New South Wales.

301 DW Roberts ← B Schaefferberg. [Coleoptera]. Acc'd 23 Mar 79. Poland.

302 DW Roberts (Bbass-2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.

303 DW Roberts (Bbass-3) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.

304 DW Roberts (Bbass-4) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.

305 DW Roberts (Bbass-5) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.

306 DW Roberts (SG-8). Acc'd Apr 79. USA: Ohio.

307 DW Roberts (SH-8). Acc'd Mar 79. USA: Ohio.

308 DW Roberts (I FAR) ← K Kawakami. Acc'd Mar 79. Japan.

317 RA LeBrun. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 27 Feb 79. USA: Rhode Island.

318 RA LeBrun. [Coleoptera: Cerambycidae]. Rec'd 27 Feb 79. USA: Rhode Island.

319 RA LeBrun. [Coleoptera: Cerambycidae]. Rec'd 27 Feb 79. Mexico.

320 GR Buckingham. *Mesovelia mulsanti* [Hemiptera: Mesoveliidae]. Dec 78. USA: Gainesville, Florida.

325 [CSIRO FI49] RS Soper. [Coleoptera: Nitidulidae] on maize. 14 Feb 79. Australia: Atherton, Queensland.

326 [CSIRO FI50] RS Soper ← R Teakle (M-168). *Chilo plejadellus* [Lepidoptera: Pyralidae]. Acc'd 26 Mar 79. Australia: Brisbane, Queensland.

333 DW Roberts (2A2-B(b)) or (SG-(G)) ← B Schaefferberg. Single spore reisolate of ARSEF 301. 1970. Poland.

334 DW Roberts (2A3-B(a)) or (SG-(F)) ← B Schaefferberg. Single spore reisolate of ARSEF 301. 1970. Poland.

335 DW Roberts (2B2-A) or (SG-(G)) ← B Schaefferberg. Single spore reisolate of ARSEF 301. 1970. Poland.

336 C Russel. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 25 Aug 78. USA: Georgia.

337 C Russel. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 25 Aug 78. USA: Georgia.

338 T Nash (MIT1). *Neodiprion pini* [Hymenoptera: Diprionidae]. 21 Jun 78.

340 DW Roberts ← G Zimmermann. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 1965. Germany: Darmstadt, Hesse.

344 J Lindegren. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Feb 79. USA: Yakima, Washington.

350 IM Abalis.

353 C Gordon. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. May 78. USA: laboratory colony, Orono, Maine.

356 [CSIRO FI51] RS Soper (Bb-1). [Orthoptera: Acrididae]. 31 Jan 79. Australia: Armidale, New South Wales.

357 RS Soper (Bb-2). [Orthoptera: Acrididae]. 31 Jan 79. Australia: Armidale, New South Wales.

384 INRA. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Sep 79. France.

412 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 27 Jul 79. USA: Apopka, Florida.

413 CW McCoy. *Araecerus fasciculatus* [Coleoptera: Anthribidae]. 8 May 79. USA: Fruitland Park, Florida.

416 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 20 Jul 79. USA: Apopka, Florida.

433 *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 14 Jan 80.

474 C Bajan. Rec'd May 80. Poland.

477 RA Daoust (Bb-Z1). *Zulia entreriana* [Homoptera: Cercopidae]. 26 Jan 80. Brazil: Mato Grosso do Sul, Mato Grosso.

501 RL Jones. Larva, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 80. PR China.

502 RL Jones. Larva, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 80. PR China.

503 RA Humber and RS Soper. Larva, *Carpocapsa pomonella* [Lepidoptera: Olethreutidae] on pear. 12 Aug 80. Yugoslavia: orchard nursery nr. Zabari, Zabari, Serbia.

504 RS Soper. [Coleoptera: Chrysomelidae]. 12 Aug 80. Yugoslavia: orchard behind bus station, Zabari, Serbia.

505 RA Humber. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 14 Aug 80. Yugoslavia: potato field at road marker 119 on M22, nr. Srbovan.

506 RA Humber and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 14 Aug 80. Yugoslavia: road marker 82 on M22, nr. Srbovan, Freketic.

507 C Sidor and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 16 Aug 80. Yugoslavia: between Putnici and Indjija.

509 C Sidor. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 18 Aug 80. Yugoslavia: nr. Varazdin by transformer in field, Nedeljanec, Croatia.

510 RA Humber and RS Soper. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 26 Aug 80. Yugoslavia: Forestry Inst. Nursery, E of Pec, nr. Crno Brdo.

533 RL Jones. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 80. PR China.

534 MG Ward. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Oct 80. USA: established laboratory colony, Boyce Thompson Institute, Ithaca, New York.

535 MG Ward. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Oct 80. USA: newly established laboratory colony, Boyce Thompson Institute, Ithaca, New York.

536 MG Ward. Leaf wash. Rec'd Sep 80. USA: ARSEF 252 spray plot, Agway Research Farm, Tully, New York.

547 VA Dyck. *Pachybrachis pallicarnis* [Coleoptera: Chrysomelidae]. Malaysia.

560 RS Soper (8132). *Leptocoris* sp. [Hemiptera: Rhopalidae]. 2 Mar 81. Indonesia: SE of Mataram, Lombok Island.

566 RS Soper (81226-3). *Leptocoris* sp. [Hemiptera: Rhopalidae]. 26 Feb 81. Indonesia: N of Yogyakarta, Sleman District, Yogyakarta, Java.

652 DW Roberts (101981-1). *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. PR China: Beijing.

654 DW Roberts (102081-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 20 Oct 81. PR China: Wuhan, Hupei.

679 DW Roberts (102081-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 20 Oct 81. PR China: Wuhan, Hupei.

681 EA Grula ← O Alyoshina. Boverin formulation. Rec'd 1982. Commonwealth of Independent States.

708 L Hung-Kei (A). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 1981. PR China.

709 L Hung-Kei (E). *Nilaparvata lugens* [Homoptera: Delphacidae]. 1981. PR China.

714 DW Roberts (102181-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

717 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Nov 81. PR China: Wuhan, Hupei.

718 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 81. PR China: Hangzhou, Zhejiang.

719 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Nov 81. PR China: Wuhan, Hupei.

721 TB Clark. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Feb 82. Colombia: ?CIAT, Cali, Valle de Cauca.

730 [CNPAF 81-11-25-01; CP 1] RA Daoust. Adult, [Hymenoptera: Vespidae]. 25 Nov 81. Brazil: Costa do Arapapa, Amazonas.

731 [CNPAF 81-11-25-05; CP 5] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 81. Brazil: Costa do Surubim, Cristo Rei, Amazonas.

732 [CNPAF 81-11-25-07; CP 6] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 81. Brazil: Costa do Surubim, Cristo Rei, Amazonas.

733 [CNPAF 82-1-6-01; CP 7] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.

734 [CNPAF 82-1-6-03; CP 9] RA Daoust ← G Pereira Rios. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.

735 [CNPAF 82-1-15-02; CP 14] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Jan 82. Brazil: CNPAF, Goiânia, Goiás.

736 [CNPAF 82-1-6-04; CP 10] RA Daoust ← G Pereira Rios. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.

737 [CNPAF 82-1-26-01; CP 20] RA Daoust ← E Ferreira. [Hemiptera: Pentatomidae]. 26 Jan 82. Brazil: CNPAF, Goiânia, Goiás.

738 [CNPAF 82-2-9-01; CP 23] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 9 Feb 82. Brazil: CNPAF, Goiânia, Goiás.

739 [CNPAF 82-2-3-01; CP 27] RA Daoust. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 3 Feb 82. Brazil: CNPAF, Goiânia, Goiás.

751 P Jolivet. [Coleoptera: Chrysomelidae]. Apr 82. Vietnam: Cuc Phuong Forest.

752 [CNPAF 82-2-15-01; CP 34] RA Daoust. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.

753 [CNPAF 82-3-24-01; CP 36] RS Soper. *Aracanthus* sp. [Coleoptera: Curculionidae]. 24 Mar 82. Brazil: Brejo Santo, Ceará.

754 [CNPAF 82-4-4-01; CP 38] RA Daoust. [Coleoptera]. 4 Apr 82. Brazil: CNPAF, Goiânia, Goiás.

756 [CNPAF 81-11-25-04; CP 4] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 81. Brazil: Costa do Surubim, Cristo Rei, Amazonas.

757 [CNPAF 82-3-23-01; CP 35] RA Daoust. [Coleoptera: Tenebrionidae]. 23 Mar 82. Brazil: Missão Velha, Ceará.

758 [CNPAF 82-3-1-03; CP 29] RA Daoust. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 1 Mar 82. Brazil: CNPAF, Goiânia, Goiás.

783 [CNPAF 82-5-6-02; CP 59] RA Daoust ← JPP de Araújo. Adult, [Coleoptera: Tenebrionidae]. 6 May 82. Brazil: Barbalha, Ceará.

784 [CNPAF 82-4-30-01C; CP 47] RA Daoust and JPP de Araújo. Adult, [Coleoptera: Elateridae]. 30 Apr 82. Brazil: Novo Oriente, Ceará.

785 [CNPAF 82-4-29-01; CP 46] RA Daoust. Adult, [Coleoptera: Cerambycidae]. 29 Apr 82. Brazil: Caucaia, Ceará.

786 [CNPAF 82-5-3-03B; CP 51] RA Daoust and FE de Araújo. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 82. Brazil: 20 km N of Pacajus, Ceará.

787 [CNPAF 82-5-6-01; CP 58] RA Daoust ← JPP de Araújo. Adult, [Coleoptera: Tenebrionidae]. 6 May 82. Brazil: Barbalha, Ceará.

788 [CNPAF 82-5-3-03A; CP 50] RA Daoust and FE de Araújo. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 82. Brazil: 20 km N of Pacajus, Ceará.

792 [KSU RLCO] WA Ramoska. Adult, *Blissus leucopterus* [Hemiptera: Lygaeidae]. Summer 81. USA: Riley County, Kansas.

793 GA Kuter (102). Leaf litter under sugar maple. 1975. USA: Abraham's Woods, University of Wisconsin Arboretum, Green County, Wisconsin.

796 DA Rodriguez Sierra ← BV Romero. [Dermoptera]. Jul 82. Colombia: Instituto Colombiana Agropecuario, Villavicencio, Meta.

804 [CNPAF 82-4-30-01D; CP 48] RA Daoust and JPP de Araújo. Adult, [Coleoptera: Elateridae]. 30 Apr 82. Brazil: Novo Oriente, Ceará.

805 [CNPAF 82-5-3-01; CP 49] RA Daoust ← LS Teixeira. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 82. Brazil: Pacajus, Ceará.

806 [CNPAF 82-5-4-06; CP 53] RA Daoust ← SM dos Santos. *Deois flavopicta* [Homoptera: Cercopidae]. 4 May 82. Brazil: CNPAF, Goiânia, Goiás.

809 [CNPAF 82-6-28-01; CP 61] RA Daoust ← SM dos Santos. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 28 Jun 82. Brazil: CNPAF, Goiânia, Goiás.

812 GG Soares (3) ← G Euverte. Overwintering adults, *Corythucha ciliata* [Hemiptera: Tingidae]. 18 Feb 81. France: Avignon, Vaucluse.

813 GG Soares (6). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.

814 GG Soares (10). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.

815 GG Soares (12). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.

816 GG Soares (20) ← JP Aeschlimann. 5th instar larva, *Sitona discoideus* [Coleoptera: Curculionidae]. 29 Mar 82. France: Montpellier, Hérault.

842 *Metamasius* sp. [Coleoptera: Curculionidae]. Colombia.

843 D Jansen. Pupa, [Lepidoptera: Saturniidae]. Costa Rica.

886 GG Soares (34) ← D Covinot. Adult, *Lygus* sp. [Hemiptera: Miridae]. Sep 82. Spain: Burgos.

928 [CNPAF 82-07-27-01; CP 63] RA Daoust ← SM dos Santos. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 27 Jul 82. Brazil: CNPAF, Goiânia, Goiás.

930 [CNPAF 82-12-15-02; CP 68] RA Daoust ← SM dos Santos. [Coleoptera: Curculionidae]. Dec 82. Brazil: CNPAF, Goiânia, Goiás.

931 [CNPAF 82-12-20-01; CP 69] RA Daoust ← H da Silva Coelho. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 20 Dec 82. Brazil: CNPAF, Goiânia, Goiás.

933 [CNPAF 82-12-20-02; CP 71] RA Daoust ← E Ferreira. *Tibraca limbativentris* [Hemiptera: Pentatomidae]. 20 Dec 82. Brazil: CNPAF, Goiânia, Goiás.

934 [CNPAF 83-1-25-01; CP 72] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Jan 83. Brazil: CNPAF, Goiânia, Goiás.

937 [CNPAF 83-3-3-01; CP 76] RA Daoust ← E Ferreira. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 3 Mar 83. Brazil: F. Itamaraty, Ponta Porã, Mato Grosso.

938 [CNPAF 83-3-3-02; CP 77] RA Daoust ← E Ferreira. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 3 Mar 83. Brazil: Ponta Porã, Mato Grosso.

941 [CNPAF 83-03-16C; CP 82] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

942 [CNPAF 83-03-16D; CP 83] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

943 [CNPAF 83-03-16E; CP 84] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

944 [CNPAF 83-03-16F; CP 85] RA Daoust and BP Magalhães. [Hemiptera: Pentatomidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

945 [CNPAF 83-03-16G; CP 86] RA Daoust and BP Magalhães. [Homoptera: Cicadellidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

946 [CNPAF 83-03-15E; CP 87] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

947 [CNPAF 83-03-15-M; CP 88] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

948 [CNPAF 83-03-15-O; CP 89] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

949 [CNPAF 83-03-15-P; CP 90] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

950 [CNPAF 83-03-15-Q; CP 91] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

951 [CNPAF 83-03-15B; CP 92] RA Daoust and BP Magalhães. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

952 [CNPAF 83-03-15H; CP 93] RA Daoust and BP Magalhães. Adult, [Coleoptera: Carabidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.

953 [CNPAF 83-03-16K; CP 98] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

956 [CNPAF 83-5-27; CP 101] RA Daoust ← SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 27 May 83. Brazil: CNPAF, Goiânia, Goiás.

957 [CNPAF 83-06-06-1; CP 102] RA Daoust. [Hymenoptera: ?Megachilidae]. 6 Jun 83. Brazil: CNPAF, Goiânia, Goiás.

958 [CNPAF 83-01-06A (CB 97); CP 104] RA Daoust ← SM de Carvalho. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 Jan 83. Brazil: Londrina, Paraná.

959 [CNPAF 83-01-06B (CB 15); CP 105] RA Daoust ← SM de Carvalho. *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 6 Jan 83. Brazil: Londrina, Paraná.

982 [CNPAF 83-03-17B; CP 95] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 17 Mar 83. Brazil: Ponta Porã, Mato Grosso.

1001 J Aoki (Beau. 5) ← K Katagiri ← T Kushida. *Diopteryx sylvestrella* [Lepidoptera: Pyralidae]. Dec 68. Japan: Hachioji, Tokyo Prefecture.

1007 J Aoki (Beau. 3). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.

1016 ME McGiffen. *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Nov 83.

1017 HS Whitney (R599). Adult, *Dendroctonus rufipennis* [Coleoptera: Scolytidae]. Jun 75. Canada: nr. Hixon, British Columbia.

1038 G Riba. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Fall 83. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1039 L Allee. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 83. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1041 J Aoki (Isa. 1) ← S Miyajima. *Psacothea hilaris* [Coleoptera: Cerambycidae]. Oct 81. Japan: Nagakute, Aichi Prefecture.

1053 [CNPS 14] F Moscardi. [Orthoptera: Acrididae]. 1983. Brazil: Londrina, Paraná.

1054 [CNPS 15] F Moscardi. *Nezara viridula* [Hemiptera: Pentatomidae]. 1983. Brazil: Londrina, Paraná.

1060 [CNPS 31] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: Londrina, Paraná.

1061 [CNPS 32] F Moscardi ← Francisco. [Coleoptera: Curculionidae]. 1983. Brazil: Londrina, Paraná.

1073 TJ Poprawski (83-48). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jul 83. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.

1074 TJ Poprawski (83-49). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jul 83. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.

1075 TJ Poprawski (83-54). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 21 Jul 83. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.

1079 *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Acc'd Feb 84. USA: Washington.

1081 L Allee. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 83. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1098 Y Ando. *Nephrotettix cincticeps* [Homoptera: Cicadellidae]. 20 Feb 83. Japan: Insectron Experiment Station, Tsukuba, Ibaraki Prefecture.

1103 [ARSEF 1558] KV Deseō (8) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 81. Italy: Bologna, Emilia-Romagna.

1104 KV Deseō (10) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 81. Italy: Bologna, Emilia-Romagna.

1105 KV Deseō (17). Larva, *Zeuzera pyrina* [Lepidoptera: Cossidae]. Jan 82. Italy: Galliera.

1106 KV Deseō (25) ← Chianella. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Feb 82. Italy: Sicily.

1107 KV Deseō (26) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Mar 82. Italy: Modena, Emilia-Romagna.

1110 KV Deseō (31) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 82. Italy: Modena, Emilia-Romagna.

1113 KV Deseō (38). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. Jun 82. Italy: insect colony, Bologna, Emilia-Romagna.

1114 KV Deseō (39). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. Jun 82. Italy: insect colony, Bologna, Emilia-Romagna.

1115 KV Deseō (40A) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae]. Aug 82. Italy: Ravenna, Emilia-Romagna.

1117 KV Deseō (41) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae] with hymenopterous parasite. Aug 82. Italy: Ravenna, Emilia-Romagna.

1118 KV Deseō (45) ← Maini. Larva, *Sesamia cretica* [Lepidoptera: Noctuidae]. Sep 82. Italy: Forli, Emilia-Romagna.

1119 KV Deseō (47). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. Oct 82. Italy: Modena, Emilia-Romagna.

1121 KV Deseō (81) ← Chianella. Pupa, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Mar 82. Italy: Padua, Venetia.

1122 KV Deseō (83). *Cydia pomonella* [Lepidoptera: Tortricidae]. Mar 83. Italy: Bologna, Emilia-Romagna.

1149 TJ Poprawski (83-79). 3rd instar larva, *Heliothis armigera* [Lepidoptera: Noctuidae]. 4 Aug 83. Spain: Córdoba.

1150 TJ Poprawski (83-37). Adult, [Diptera: Tachinidae] parasitic on *Sitona lineatus* [Coleoptera: Curculionidae]. 17 Nov 83. France: Senneville.

1151 TJ Poprawski (83-05). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. 24 Aug 83. Canada: L'Acadie, Québec.

1153 TJ Poprawski (074). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.

1154 TJ Poprawski (072). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 25 Jan 84. Morocco: Jramma.

1155 TJ Poprawski (073). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.

1156 TJ Poprawski (83-639). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 22 Oct 83. France: Guyancourt, Yvelines.

1157 TJ Poprawski (83-619). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.

1158 TJ Poprawski (83-634). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Vernon, Eure.

1159 TJ Poprawski (83-615). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.

1160 TJ Poprawski (83-614). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.

1161 TJ Poprawski (83-626). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Mantes-la-Jolie, Yvelines.

1162 TJ Poprawski (83-623). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Limay, Yvelines.

1163 TJ Poprawski (071A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.

1164 TJ Poprawski (070). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.

1165 TJ Poprawski (83-621). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.

1166 TJ Poprawski (83-77). 3rd instar larva, *Heliothis armigera* [Lepidoptera: Noctuidae]. 2 Aug 83. Spain: Córdoba.

1167 TJ Poprawski (83-701). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Nov 83. France: Senneville.

1168 TJ Poprawski (83-702). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 10 Oct 83. France: Senneville.

1169 TJ Poprawski (83-703). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Senneville.

1170 TJ Poprawski (83-704). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 23 Nov 83. France: Senneville.

1171 TJ Poprawski (A2). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.

1172 TJ Poprawski (A4). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.

1173 TJ Poprawski (A5). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 16 Feb 84. Morocco: Achouria.

1174 TJ Poprawski (A6). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Achouria.

1175 TJ Poprawski (A7). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 10 Feb 84. Morocco: Achouria.

1176 TJ Poprawski (J1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Jan 84. Morocco: Jorf.

1177 TJ Poprawski (J2). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Jan 84. Morocco: Jorf.

1178 TJ Poprawski (J3). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 7 Feb 84. Morocco: Jorf.

1179 TJ Poprawski (J4). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 2 Dec 83. Morocco: Jorf.

1180 TJ Poprawski (J5). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 2 Dec 83. Morocco: Jorf.

1181 TJ Poprawski (J6). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 10 Feb 84. Morocco: Jorf.

1182 TJ Poprawski (83-616). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Senneville.

1183 TJ Poprawski (J7). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 16 Feb 84. Morocco: Jorf.

1185 [INRA Bb-142] TJ Poprawski. *Sitona discoideus* [Coleoptera: Curculionidae]. May 77. France: Viols-le-Fort, Hérault.

1186 [INRA Bb-195] TJ Poprawski. Adult, *Caryedon serratus* [Coleoptera: Bruchidae]. 6 Jun 83. France: La Minière.

1188 TJ Poprawski (E1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Elbaya.

1189 TJ Poprawski (A1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Achouria.

1190 TJ Poprawski (A3). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Achouria.

1191 TJ Poprawski (645). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Dec 83. France: Orléans, Loiret.

1192 TJ Poprawski (646). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Anet, Eure-et-Loir.

1193 TJ Poprawski (647). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Ecos, Eure.

1194 TJ Poprawski (648). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Meulan, Yvelines.

1269 [IRRI Pal. 2] MC Rombach. *Leptocoris oratorius* [Hemiptera: Rhopalidae] on rice. Acc'd 3 May 84. Philippines: Palawan.

1270 [IRRI O2III] MC Rombach. *Leptocoris oratorius* [Hemiptera: Rhopalidae] on rice. Acc'd 3 May 84. Philippines: Palawan.

1306 TJ Poprawski (83-611). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.

1309 TJ Poprawski (A8). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.

1311 TJ Poprawski (A10). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.

1312 TJ Poprawski (A11). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.

1313 TJ Poprawski (A12). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.

1314 TJ Poprawski (070A). 3rd instar larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. 6 Mar 84. France: La Minière.

1315 TJ Poprawski (070B). 3rd instar larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. 6 Mar 84. France: La Minière.

1316 TJ Poprawski (070C). 3rd instar larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. 6 Mar 84. France: La Minière.

1317 TJ Poprawski (074A). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 18 Mar 83. France: Choisy-en-Brie, Haute-Savoie.

1318 TJ Poprawski (074B). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 18 Mar 83. France: Choisy-en-Brie, Haute-Savoie.

1319 TJ Poprawski (076). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1320 TJ Poprawski (078). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1321 TJ Poprawski (079B). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1322 TJ Poprawski (079C). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1323 TJ Poprawski (079D). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1324 TJ Poprawski (079E). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1325 TJ Poprawski (079F). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

1326 TJ Poprawski (080). Nymph, [Orthoptera: Acrididae]. 27 Jun 83. France: Prades, Pyrénées-Orientales.

1359 S Balazy (1597a). Rec'd 19 May 84. Poland.

1389 TJ Poprawski (088). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 84. France: Baron.

1394 TJ Poprawski (071). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 18 Aug 83. France: Choisy-en-Brie, Haute-Savoie.

1395 TJ Poprawski (075). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 23 Aug 83. France: Saint-Denis du Pin, Seine-Saint-Denis.

1396 TJ Poprawski (077A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 30 Aug 83. France: Senneville.

1397 TJ Poprawski (077B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 30 Aug 83. France: Senneville.

1398 TJ Poprawski (086). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 84. France: Marsanne, Drôme.

1399 TJ Poprawski (087). Adult, *Hypera postica* [Coleoptera: Curculionidae]. Mar 84. France: Marsanne, Drôme.

1404 TJ Poprawski (092A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 9 Sep 83. France: Fort la Latte.

1405 TJ Poprawski (092B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 9 Sep 83. France: Fort la Latte.

1406 TJ Poprawski (093A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1407 TJ Poprawski (093B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1408 TJ Poprawski (094A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1409 TJ Poprawski (094B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1410 TJ Poprawski (095). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1411 TJ Poprawski (096A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1412 TJ Poprawski (096B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.

1413 TJ Poprawski (097). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 13 Oct 83. France: Senneville.

1414 TJ Poprawski (099). Nymph, *Lygus* sp. [Hemiptera: Miridae]. May 84. France: Senneville.

1450 [CNPAF 52; CP 125] F Moscardi. *Sternechus subsignatus* [Coleoptera: Curculionidae]. 27 Mar 84. Brazil: Londrina, Paraná.

1453 [CNPAF 84-02-30-2; CP 143] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.

1454 [CNPAF 84-03-28-1F; CP 144] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.

1455 [CNPAF 84-03-28-D; CP 145] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.

1456 [CNPAF 84-04-03-6A; CP 146] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 30 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1457 [CNPAF 84-03-28-1A; CP 147] RA Daoust. *Podisus* sp. [Hemiptera: Pentatomidae]. 28 Mar 84. Brazil: Cascavel, Paraná.

1458 [CNPAF 84-03-28-1E; CP 148] RA Daoust. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.

1459 [CNPAF 84-04-03-1E; CP 149] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1460 [CNPAF 84-04-03-1B; CP 150] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1461 [CNPAF 84-03-29-1; CP 151] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 29 Mar 84. Brazil: Capitão Leônidas Marques, Paraná.

1462 [CNPAF 84-03-28-1G; CP 152] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.

1463 [CNPAF 84-03-28-1L; CP 153] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.

1464 [CNPAF 84-04-03-6B; CP 154] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1465 [CNPAF 84-04-03-1A; CP 155] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1466 [CNPAF 84-03-31-6; CP 156] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 31 Mar 84. Brazil: Sto. Antonio do Sudoeste, Paraná.

1467 [CNPAF 84-04-02-5A; CP 157] RA Daoust and BP Magalhães. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: São Carlos, Santa Catarina.

1468 [CNPAF 84-04-02-5B; CP 158] RA Daoust and BP Magalhães. [Hymenoptera: Apoidea]. 2 Apr 84. Brazil: São Carlos, Santa Catarina.

1469 [CNPAF 84-03-31-2; CP 159] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 31 Mar 84. Brazil: Sto. Antonio do Sudoeste, Paraná.

1470 [CNPAF 84-04-02-3; CP 160] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.

1471 [CNPAF 84-04-02-4; CP 161] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.

1472 [CNPAF 84-04-02-2; CP 162] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.

1473 [CNPAF 84-04-02-1B; CP 163] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.

1474 [CNPAF 84-04-02-1A; CP 164] RA Daoust, BP Magalhães and M Pinat. *Nezara viridula* [Hemiptera: Pentatomidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.

1475 [CNPAF 84-04-03-1C; CP 165] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1476 [CNPAF 84-04-25-1; CP 166] SM dos Santos. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 25 Apr 84. Brazil: CNPAF, Goiânia, Goiás.

1478 SB Alves (256). *Euschistus heros* [Hemiptera: Pentatomidae] on soybean. Rec'd 6 Jul 84. Brazil: Goiás.

1479 SB Alves (246). *Stenoma decora* [Lepidoptera: Stenomatinae] on cacao. Rec'd 6 Jul 84. Brazil: Bahia.

1480 SB Alves (252). *Hypothenemus hampei* [Coleoptera: Scolytidae] on coffee. Rec'd 6 Jul 84. Brazil: São Paulo.

1483 SB Alves (61). *Cosmopolites sordidus* [Coleoptera: Curculionidae] on banana. Rec'd 6 Jul 84. Brazil: Espírito Santo.

1484 SB Alves (196). *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. Rec'd 6 Jul 84. Brazil: Pernambuco.

1491 [INRA Bb-169] GG Soares. *Sitona humeralis* [Coleoptera: Curculionidae]. Mar 81. France: Lusignan, Vienne.

1509 I Majchrowicz (56) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1510 I Majchrowicz (58) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1511 I Majchrowicz (75) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1512 TJ Poprawski (0102A). Adult, *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 21 Jun 84. France: La Minière.

1513 TJ Poprawski (0102B). Adult, *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 21 Jun 84. France: La Minière.

1514 TJ Poprawski (0103A). Pupa, *Musca autumnalis* [Diptera: Muscidae]. 13 Jun 84. France: Le Trait, Seine-Maritime.

1515 TJ Poprawski (0107). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 13 Jun 84. France.

1516 TJ Poprawski (0108). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 19 Aug 84. France: Senneville.

1517 TJ Poprawski (0109). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 19 Jun 84. France: Dagny.

1518 TJ Poprawski (0111). Adult, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. 27 Jun 84. France: Entraigues, Vaucluse.

1519 TJ Poprawski (0112). Adult, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. 27 Jun 84. France: Entraigues, Vaucluse.

1520 TJ Poprawski (0117A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 27 Jun 84. France: Prades, Pyrénées-Orientales.

1521 TJ Poprawski (0117B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 27 Jun 84. France: Prades, Pyrénées-Orientales.

1523 TJ Poprawski (0122). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. France: Ronce.

1524 TJ Poprawski (0123). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. France: Ronce.

1525 TJ Poprawski (0124A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.

1526 TJ Poprawski (0124B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.

1527 TJ Poprawski (0125). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.

1528 TJ Poprawski (0126). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.

1529 TJ Poprawski (0127A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.

1531 TJ Poprawski (0127B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.

1533 TJ Poprawski (0128A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1534 TJ Poprawski (0128B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1535 TJ Poprawski (0130A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1536 TJ Poprawski (0130B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1537 TJ Poprawski (0131A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1538 TJ Poprawski (0131B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1539 TJ Poprawski (0132). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1540 TJ Poprawski (0133A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1553 RS Soper (B). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.

1554 RS Soper (C). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.

1555 RS Soper (D). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.

1556 RS Soper (E). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.

1558 [ARSEF 1103] KV Deseö (8) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 81. Italy: Bologna, Emilia-Romagna.

1559 KV Deseö (88) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.

1560 KV Deseö (89) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.

1561 KV Deseö (90) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.

1562 KV Deseö (91) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.

1563 KV Deseö (92) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.

1564 KV Deseö (103) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1565 KV Deseö (109) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1566 S Keller (D155). [Coleoptera: Scolytidae]. 14 Aug 84. Switzerland: Siblingen, Schaffhausen.

1567 S Keller (D156). [Coleoptera: Scolytidae]. 14 Aug 84. Switzerland: Siblingen, Schaffhausen.

1619 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1620 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1621 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1622 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 27 Jul 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1623 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 27 Jul 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1624 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 30 Jul 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1627 TJ Poprawski (0104). Larva, [Lepidoptera: Noctuidae]. 13 Jun 84. Hungary: Gödöllő.

1628 TJ Poprawski (0105). Larva, [Lepidoptera: Noctuidae]. 13 Jun 84. Hungary: Gödöllő.

1629 TJ Poprawski (0106). Larva, [Lepidoptera: Noctuidae]. 13 Jun 84. Hungary: Gödöllő.

1630 TJ Poprawski (0118A). Larva, *Calliphora* sp. [Diptera: Calliphoridae]. 27 Jun 84. France: Sèvres, Yvelines.

1635 TJ Poprawski (0133B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 Jun 84. Austria: Burgenland.

1636 TJ Poprawski (0134). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

1637 TJ Poprawski (0135A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.

1638 TJ Poprawski (0135B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.

1640 TJ Poprawski (0137). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.

1643 TJ Poprawski (0140). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.

1647 TJ Poprawski (0143). Adult, *Sitona* sp. [Coleoptera: Curculionidae]. 22 Aug 84. France: Orval, Ardennes.

1648 TJ Poprawski (0144). Adult, *Lygus* sp. [Hemiptera: Miridae]. 22 Aug 84. France: Charente.

1649 TJ Poprawski (0145). Adult, *Lygus* sp. [Hemiptera: Miridae]. 22 Aug 84. France: Drôme.

1650 TJ Poprawski (0146). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. 22 Aug 84. France: Saint-Denis du Pin, Seine-Saint-Denis.

1651 Abbott Laboratories (122-1). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.

1652 Abbott Laboratories (106(2)). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.

1653 Abbott Laboratories (114(2)). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.

1654 Abbott Laboratories (112). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.

1677 M Shimazu (F-185). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. 26 Jul 76. Japan: Ishikawa Prefecture.

1678 M Shimazu (F-237). *Moechotypa diphysis* [Coleoptera: Cerambycidae]. Aug 78. Japan: Tsushima, Nagasaki Prefecture.

1679 M Shimazu (F-263). *Monochamus alternatus* [Coleoptera: Cerambycidae]. 25 Aug 78. Japan: Kumamoto Prefecture.

1683 M Shimazu (F-359(30)). *Anomala cuprea* [Coleoptera: Scarabaeidae]. 20 Nov 80. Japan: Nagano Prefecture.

1689 Abbott Laboratories (AARC 8401-A(1)). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.

1690 Abbott Laboratories (AARC 8401-A(2)). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.

1691 Abbott Laboratories (AARC 8401-B). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.

1692 Abbott Laboratories (AARC 8401-D). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.

1704 L Allee (84-1). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1705 L Allee (84-3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1706 L Allee (84-4). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1707 L Allee (84-5). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1708 L Allee (84-7). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1709 L Allee (84-8). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1710 L Allee (84-9). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1711 L Allee (84-10). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1712 L Allee (84-11). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1713 L Allee (84-12). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1721 L Allee (84-13). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 17 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1722 L Allee (84-19). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1723 L Allee (84-20). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1747 Abbott Laboratories (124). 1984 formulation of ARSEF 252. Acc'd 6 Dec 84.

1748 Abbott Laboratories (Bb029-13, "3 of 4"). 1983 formulation of ARSEF 252. Acc'd 6 Dec 84.

1749 L Allee (84-16). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 17 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1750 L Allee (84-18). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1775 L Allee (84-22). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1776 L Allee (84-23). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1777 L Allee (84-24). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: insecticide-treated plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1778 L Allee (84-25). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1779 L Allee (84-26). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1780 L Allee (84-27). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1781 L Allee (84-28). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

1782 Abbott Laboratories (102A). 1984 formulation of ARSEF 252. Acc'd 11 Jan 85.

1783 Abbott Laboratories (104, 106). 1984 formulation of ARSEF 252. Acc'd 11 Jan 85.

1788 TJ Poprawski (0147). Larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. Acc'd 22 Jan 85. Spain.

1789 TJ Poprawski (0148A). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Saint-Laurent, Vosges.

1790 TJ Poprawski (0148B). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Saint-Laurent, Vosges.

1791 TJ Poprawski (0149). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Saint-Laurent, Vosges.

1792 TJ Poprawski (0150A). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Fiancay.

1793 TJ Poprawski (0150B). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Fiancay.

1794 TJ Poprawski (0150C). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Fiancay.

1795 TJ Poprawski (0151). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Marsanne, Drôme.

1796 TJ Poprawski (0152A). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.

1797 TJ Poprawski (0152B). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.

1798 TJ Poprawski (0152C). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.

1799 TJ Poprawski (0152D). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.

1800 TJ Poprawski (0154). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Septeuil, Yvelines.

1801 TJ Poprawski (0155). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Septeuil, Yvelines.

1802 TJ Poprawski (0156). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Heronia.

1803 TJ Poprawski (0157). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Heronia.

1804 TJ Poprawski (0158A). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1805 TJ Poprawski (0158B). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1806 TJ Poprawski (0158C). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1807 TJ Poprawski (0159A). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1808 TJ Poprawski (0159B). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1809 TJ Poprawski (0160). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bocequillas.

1810 TJ Poprawski (0161). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1811 TJ Poprawski (0167C). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.

1812 TJ Poprawski (0163). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Thessaloniki.

1813 TJ Poprawski (0164A). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1814 TJ Poprawski (0164B). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.

1815 TJ Poprawski (0165). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.

1816 TJ Poprawski (0166A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.

1817 TJ Poprawski (0166B). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.

1818 TJ Poprawski (0166C). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.

1819 TJ Poprawski (0166D). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.

1820 TJ Poprawski (0167A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.

1821 TJ Poprawski (0167B). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.

1822 TJ Poprawski (0162). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Thessaloniki.

1831 SB Alves (63). *Atta* sp. [Hymenoptera: Formicidae]. Rec'd 21 Jan 85. Brazil.

1832 SB Alves (197). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 21 Jan 85. Brazil.

1833 SB Alves (267). *Cosmopolites* sp. [Coleoptera: Curculionidae]. Rec'd 21 Jan 85. Brazil.

1834 SB Alves (268). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 21 Jan 85. Brazil.

1836 SB Alves (309). *Terastia meticulosalis* [Lepidoptera: Pyralidae]. Rec'd 21 Jan 85. Brazil.

1838 Abbott Laboratories (102B(2)). 1984 formulation of ARSEF 252. Acc'd 29 Jan 85.

1839 Abbott Laboratories (106). 1984 formulation of ARSEF 252. Acc'd 29 Jan 85.

1842 Abbott Laboratories (Bb028-5F). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.

1843 Abbott Laboratories (Bb028-138). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.

1844 Abbott Laboratories (Bb028-148). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.

1845 Abbott Laboratories (Bb028-150). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.

1846 Abbott Laboratories (Bb029-13). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.

1848 HS Whitney (R629) ← HA Moeck. Adult, *Rhizophagus grandis* [Coleoptera: Rhizophagidae]. Sep 84. Belgium.

1849 HA Moeck and HS Whitney (R630). Adult, *Dendroctonus ponderosae* [Coleoptera: Scolytidae]. Oct 84. Canada: Lye Lake Plot, Riske Creek, British Columbia.

1850 HS Whitney (R633) ← IS Ottos. Larva, *Choristoneura* sp. [Lepidoptera: Tortricidae]. Jun 83. Canada: Terrace, British Columbia.

1852 P Spencer and HS Whitney (R634). *Dryocoetes confusus* [Coleoptera: Scolytidae]. Jun 84. Canada: Top of the World Park, British Columbia.

1853 HS Whitney (R636) ← HA Moeck. Larva, *Dendroctonus ponderosae* [Coleoptera: Scolytidae]. 5 Oct 84. Canada: laboratory colony, British Columbia.

1854 HA Moeck and HS Whitney (R637). Adult, *Pytho* sp. [Coleoptera: Pythidae]. Oct 84. Canada: Lye Lake Plot, Riske Creek, British Columbia.

1855 P Spencer and HS Whitney (R640). Adult, *Ips* sp. [Coleoptera: Scolytidae]. Jul 84. Canada: Christina Lake, British Columbia.

1864 TJ Poprawski (0168). Adult, *Delia antiqua* [Diptera: Anthomyiidae]. Acc'd 25 Mar 85. France: La Minière.

1865 TJ Poprawski (0169). Adult, *Delia antiqua* [Diptera: Anthomyiidae]. Acc'd 25 Mar 85. France: La Minière.

1866 TJ Poprawski (0170). Adult, *Delia antiqua* [Diptera: Anthomyiidae]. Acc'd 25 Mar 85. France: La Minière.

1886 H David. *Chilo infuscatellus* [Lepidoptera: Pyralidae] on sugar cane. Rec'd 1 Jun 85. India: Sugarcane Breeding Institute, Coimbatore, Tamil Nadu.

1889 Abbott Laboratories (1985-3-69). 1985 formulation of ARSEF 252. Acc'd 6 Jun 85.

1953 [CNPAF 85-7-23; CP 178] JC Lord and BP Magalhães. [Hymenoptera: Vespidae]. 23 Jul 85. Brazil: Santana do Ipanema, Alagoas.

1954 [CNPAF 85-7-23-1; CP 179] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 23 Jul 85. Brazil: Santana do Ipanema, Alagoas.

1955 [CNPAF 85-7-23-2; CP 180] JC Lord and BP Magalhães. [Diptera: Muscidae]. 23 Jul 85. Brazil: Santana do Ipanema, Alagoas.

1956 [CNPAF 85-7-22; CP 181] JC Lord and BP Magalhães. *Coleomegilla maculata* [Coleoptera: Coccinellidae]. 22 Jul 85. Brazil: União dos Palmares, Alagoas.

1959 [CNPAF 85-7-24-2; CP 185] JC Lord and BP Magalhães. [Orthoptera: Acrididae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.

1960 [CNPAF 85-7-24-3; CP 186] JC Lord and BP Magalhães. [Hymenoptera: Formicidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.

1961 [CNPAF 85-7-24-4; CP 187] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.

1962 [CP 188] JC Lord and BP Magalhães. [Diptera]. Jul 85. Brazil: Ribeira do Pombal, Bahia.

1966 [CP 168] D Gabriel. *Anthonomus grandis* [Coleoptera: Curculionidae]. 1983. Brazil: Fazenda St. Genebra, Campinas, São Paulo.

1969 KV Raman. *Premnotypes suturicallus* [Coleoptera: Curculionidae]. 1985. Peru: Andes Mountains.

1971 [ARSEF 1451 (deaccessioned); CNPAF 84-3-12; CP 124] H da Silva Coelho. [Coleoptera: Chrysomelidae]. 12 Mar 84. Brazil: CNPAF, Goiânia, Goiás.

1973 TJ Poprawski (0176). Adult, [Hemiptera: Pentatomidae]. Acc'd 25 Sep 85. Austria: Burgenland.

1974 TJ Poprawski (0177). Adult, [Hemiptera: Pentatomidae]. Acc'd 25 Sep 85. Austria: Burgenland.

1975 TJ Poprawski (0178). Adult, [Coleoptera: Carabidae]. Acc'd 25 Sep 85. France: Saint-Genys.

1976 TJ Poprawski (0179). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.

1977 TJ Poprawski (0180). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.

1978 TJ Poprawski (0181). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.

1979 TJ Poprawski (0182). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.

1980 TJ Poprawski (0183). Adult, [Coleoptera]. Acc'd 25 Sep 85. France: Saint-Genys.

1982 TJ Poprawski (0185). Egg, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Acc'd 25 Sep 85. France: La Repara.

1984 TJ Poprawski (0187). Adult, [Hemiptera: Pentatomidae]. Acc'd 25 Sep 85. France: Drôme.

1988 TJ Poprawski (0175). Adult, *Nabis* sp. [Hemiptera: Nabidae]. Acc'd 25 Sep 85. Austria: Burgenland.

2010 CIRPON ← M Yasem de Romero. *Cycloneda sanguinea* [Coleoptera: Coccinellidae]. 1984. Argentina: Tucumán.

2011 CIRPON ← M Yasem de Romero. *Nezara viridula* [Hemiptera: Pentatomidae]. 1984. Argentina: Tucumán.

2030 HS Whitney (CPB-1). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

2031 HS Whitney (CPB-2). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] in soil. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

2032 HS Whitney (CPB-3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] in soil. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

2033 HS Whitney (LBB-multi). *Coccinella* sp. [Coleoptera: Coccinellidae]. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

2034 HS Whitney (LBB-multi 2). *Coccinella* sp. [Coleoptera: Coccinellidae]. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

2040 MC Rombach (171085-1) ← SB Ahn (E5-1). [Coleoptera: Curculionidae]. 17 Oct 85. Korea.

2041 MC Rombach (281085-1). Larva, *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 28 Oct 85. Philippines: IRRI field, Los Baños, Manila.

2054 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

2075 [CNPAF 85-7-24; CP 183] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.

2079 [CP 198] JC Lord and BP Magalhães. *Systena* sp. [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.

2191 [CNPAF 86-3-26; CP 201] JFS Martins. *Oebalus poecilus* [Hemiptera: Pentatomidae]. 26 Mar 86. Brazil: Fazenda Palmital, CNPAF, Goiânia, Goiás.

2236 LS Osborne (UK-3(1)). *Rhizoecus* sp. [Homoptera: Pseudococcidae] in soil. Acc'd 8 Sep 86.

2248 DA Rodriguez Sierra (106 Bb). *Premnotypes vorax* [Coleoptera: Curculionidae]. Feb 86. Colombia: Tibaitata, Mosquera, Nariño.

2249 DA Rodriguez Sierra (203 Bb). Adult, *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Feb 86. Colombia: Tibaitata, Mosquera, Nariño.

2250 DA Rodriguez Sierra (201 Bb). *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Feb 86. Colombia: Tibaitata, Mosquera, Nariño.

2253 TJ Poprawski (8629). Larva, *Autographa gamma* [Lepidoptera: Noctuidae] on alfalfa. Jul 86. France: Orgerus, Yvelines.

2254 TJ Poprawski (8630). Larva, *Autographa gamma* [Lepidoptera: Noctuidae] on alfalfa. 8 Aug 86. France: Orgerus, Yvelines.

2267 FPMI. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1986. Canada: Ontario.

2270 BT Forschler (RF-2). Adult, *Cyrtepistomus castaneus* [Coleoptera: Curculionidae]. Sep 86. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.

2271 BT Forschler (RF-3). Adult, *Cyrtepistomus castaneus* [Coleoptera: Curculionidae]. Sep 86. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.

2297 DA Rodriguez Sierra (103 Bb). Larva, *Brassolis* sp. [Lepidoptera: Brassolidae]. Oct 85. Colombia: Cumara, Meta.

2318 TJ Poprawski (8642). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 3 Nov 86. France: Corbeil-Cerf, Essonne.

2319 TJ Poprawski (8643). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 3 Nov 86. France: Corbeil-Cerf, Essonne.

2320 TJ Poprawski (8644). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 6 Nov 86. France: Garancières, Yvelines.

2321 TJ Poprawski (8645). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 6 Nov 86. France: Garancières, Yvelines.

2322 TJ Poprawski (8646). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 6 Nov 86. France: Garancières, Yvelines.

2330 PI Espinosa Camarena. *Diabrotica virgifera* [Coleoptera: Chrysomelidae]. 1986. Mexico: Zapotlanejo, Jalisco.

2336 [ARSEF 2883] M Feng (SGBB8601). *Schizaphis graminum* [Homoptera: Aphididae] on spring wheat. 9 Jul 86. USA: Apple Valley Rd. & Klahr Rd., Parma, Idaho.

2360 MC Rombach (041186-1). 4 Nov 86.

2402 [ESALQ 483] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Sep 86. Brazil: Mato Grosso.

2403 [ESALQ 484] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Sep 86. Brazil: Mato Grosso.

2404 [ESALQ 447] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Sep 86. Brazil: Mato Grosso.

2417 [SBI 87-1] H David. *Emmalocera depressella* [Lepidoptera: Phycitinae]. Acc'd 19 May 87. India.

2427 DG Holdom (100287-2a). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Feb 87. Indonesia: CIBA GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2430 SV Krueger. *Blissus leucopterus* [Hemiptera: Lygaeidae]. Mar 80. USA: Wakefield, Kansas.

2454 [NCTC 2227] UAMH (1514) ← IMI (12942) ← T Petch. [Diptera]. Rec'd 1 Jun 87. Sri Lanka.

2455 UAMH (4132) ← GS Bulmer (05-78). *Alligator mississippiensis* [Crocodylia: Alligatoridae]. May 78. USA: City Zoo, Oklahoma City, Oklahoma.

2457 TJ Poprawski (8701) ← AJ Nasca (Bb-T11). *Nezara viridula* [Hemiptera: Pentatomidae]. 1984. Argentina: Tucumán.

2458 TJ Poprawski (8702). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 27 Mar 87. France: Béhoust, Yvelines.

2461 TJ Poprawski (8706). Adult, *Lygus pratensis* [Hemiptera: Miridae]. 26 Mar 87. France: Béhoust, Yvelines.

2462 TJ Poprawski (8707). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 3 Jun 87. France: Béhoust, Yvelines.

2463 TJ Poprawski (8710). Adult, *Galerucina* sp. [Coleoptera: Chrysomelidae]. 2 Feb 87. France: Béhoust, Yvelines.

2484 SR Sánchez Peña (Trachym 1). *Atta mexicana* [Hymenoptera: Formicidae]. 20 Dec 86. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.

2485 SR Sánchez Peña (Trachym 2). *Atta mexicana* [Hymenoptera: Formicidae]. 20 Dec 86. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.

2486 SR Sánchez Peña (Trachym 3). *Atta mexicana* [Hymenoptera: Formicidae]. 20 Dec 86. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.

2487 SR Sánchez Peña. [Hymenoptera: Formicidae]. 13 Jun 87. Mexico: Monterrey, Nuevo León. Restricted until September 1994.

2509 [CP 229] DR Sosa Gomez. *Mauobupis morosi* [Coleoptera: Chrysomelidae]. 8 Apr 86. Argentina: La Virginia, Tucumán.

2511 [CP 221] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. Acc'd 8 Dec 87. Brazil: CNPS, Londrina, Paraná.

2512 [CP 237] J Maria. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 29 Jun 87. Brazil: Manaus, Amazonas.

2515 [CP 227] DR Sosa Gomez. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 86. Argentina: Blanco Pozo, Tucumán.

2516 [CP 228] DR Sosa Gomez. *Nezara viridula* [Hemiptera: Pentatomidae]. Jun 86. Argentina: Yerba Bueno, Tucumán.

2519 [CP 223] F Moscardi. *Podisus* sp. [Hemiptera: Pentatomidae]. 1984. Brazil: CNPS, Londrina, Paraná.

2520 [CP 222] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: CNPS, Londrina, Paraná.

2544 SR Sánchez Peña. [Homoptera: Cicadidae]. 20 Nov 87. Mexico: San Pedro (Chipinque), Nuevo Leon.

2545 SR Sánchez Peña. [Hymenoptera: Sphecidae]. 22 Jun 87. Mexico: San Pedro (Chipinque), Nuevo Leon.

2557 S Sandoval (95). Adult, [Coleoptera: Cerambycidae]. Acc'd 18 Mar 88. Ecuador.

2559 [ARSEF 2638; CP 230] SB Alves (290). *Anthonomus grandis* [Coleoptera: Curculionidae]. Acc'd 13 Apr 88. Brazil: ESALQ, Piracicaba, São Paulo.

2570 C Bradley (GMP1). Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.

2571 C Bradley (GMP2). Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.

2572 C Bradley. *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.

2573 C Bradley. *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.

2579 JJ Jackson. *Diabrotica barberi* [Coleoptera: Chrysomelidae]. 18 Jul 88. USA: laboratory colony, Brookings, South Dakota.

2580 MD Bryan. Adult, *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Jul 88. USA: laboratory cages, field collected population, Niles, Michigan.

2597 RC Rajak (ENT/42). *Hyblaea puer* [Lepidoptera: Hyblaeidae] on teak, *Tectona grandis*. Acc'd 12 Sep 88. India.

2619 SB Alves (721). *Brassolis saphorae* [Lepidoptera: Brassolidae]. Apr 88. Brazil: Moju, Pará.

2621 SB Alves (726). Rec'd 7 Oct 88.

2624 [CP 239] Reisolate from *Cosmopolites sordidus* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88.

2625 [CNPAF 88-5-6; CP 240] DW Roberts ← EC de Moura. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 May 88. Brazil: CNPAF, Goiânia, Goiás.

2626 [CNPAF 88-5-6A; CP 241] DW Roberts ← EC de Moura. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 May 88. Brazil: CNPAF, Goiânia, Goiás.

2629 [CNPAF PI-196; CP 244] DW Roberts ← Planalsucar. *Diatraea saccharalis* [Lepidoptera: Pyralidae]. 11 Feb 85. Brazil: Usina Salgado, Ipojuca, Pernambuco.

2630 [CNPAF 63; CP 246] DW Roberts ← SB Alves. 5 Oct 84. Brazil: Piracicaba, São Paulo.

2631 [CNPAF 258; CP 247] DW Roberts ← SB Alves. 5 Oct 84. Brazil: Piracicaba, São Paulo.

2632 [CNPAF 267; CP 248] DW Roberts ← SB Alves. 5 Dec 84. Brazil: Piracicaba, São Paulo.

2633 [CNPAF 268; CP 249] DW Roberts ← SB Alves. Larva, [Lepidoptera]. 9 Feb 83. Brazil: Piracicaba, São Paulo.

2636 [CNPAF 88-6-17; CP 254] DW Roberts ← SM dos Santos. Laboratory contaminant. 17 Jun 88. Brazil: CNPAF, Goiânia, Goiás.

2637 [CNPAF 88-6-22; CP 255] DW Roberts ← E Dias Quintela. Larva, [Lepidoptera]. 22 Jun 88. Brazil: Caucaia, Ceará.

2638 [ARSEF 2559; CP 230] DW Roberts ← SB Alves (290). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88. Brazil: ESALQ, Piracicaba, São Paulo.

2639 DW Roberts ← SB Alves (292). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88. Brazil: ESALQ, Piracicaba, São Paulo.

2642 DW Roberts ← SB Alves (695). *Metamasius hemipterus* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88. Brazil: Londrina, Paraná.

2676 WA Gardner and RD Harrison. Adult, *Curculio caryae* [Coleoptera: Curculionidae] on pecan. 25 Aug 88. USA: Griffin, Georgia.

2685 [IMI 327908] C Prior (Kenya 1). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Kenya.

2686 [IMI 327909] C Prior (Kenya 2). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Kenya.

2687 [IMI 330194] C Prior (Kenya 3). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Kenya.

2688 [IMI 327910] C Prior (Togo 1). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.

2689 [IMI 329064] C Prior (Togo 2). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.

2690 [IMI 329065] C Prior (Togo 3). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.

2691 [IMI 329066] C Prior (Togo 4). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.

2692 [IMI 329067] C Prior (Togo 5). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.

2693 [IMI 327906] C Prior. *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Mexico.

2694 [IMI 328059] C Prior. *Larinus* sp. [Coleoptera: Curculionidae]. Rec'd 19 Mar 89. Switzerland.

2695 Abbott Laboratories (89-201). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 24 Mar 89. Commonwealth of Independent States.

2722 [Evans BioControl 447] B Bennett. *Solenopsis* sp. [Hymenoptera: Formicidae]. Acc'd 30 May 89. Brazil.

2723 [Evans BioControl 479] B Bennett. *Solenopsis* sp. [Hymenoptera: Formicidae]. Acc'd 30 May 89. Brazil.

2725 GW Riethmacher (B10C). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 4 Mar 89. Philippines: La Trinidad, Benguet.

2727 GW Riethmacher (L1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Jan 89. Philippines: La Trinidad, Benguet.

2728 GW Riethmacher (L2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Jan 89. Philippines: La Trinidad, Benguet.

2729 GW Riethmacher (L3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 17 Mar 89. Philippines: La Trinidad, Benguet.

2737 GW Riethmacher (BP). *Bombyx mori* [Lepidoptera: Bombycidae]. 23 Dec 88. Philippines: La Trinidad, Benguet.

2739 GW Riethmacher (BB). Boverin formulation passed through *Plutella xylostella* [Lepidoptera: Plutellidae]. 28 Dec 88. Philippines: La Trinidad, Benguet.

2748 GW Riethmacher (B13A). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 11 Mar 89. Philippines: Atok, Benguet.

2785 RA Humber. Reisolate of ARSEF 32 passed through *Locusta migratoria* [Orthoptera: Acrididae]. Jul 89. Lab. manipulation.

2831 AE Hajek ← K Tatman (MD99#6). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 89. USA: Baltimore County, Maryland.

2857 SR Sánchez Peña (3-2). Pupa, [Lepidoptera]. Jul 87. Mexico: Pueblo Nuevo, Durango.

2860 M Feng (SG8702). *Schizaphis graminum* [Homoptera: Aphididae] on spring wheat. 17 Jul 87. USA: Parma, Idaho.

2861 M Feng (DN8803). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 7 Jul 88. USA: Parma, Idaho.

2864 M Feng (DN8804). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 19 Jul 88. USA: Parma, Idaho.

2869 J Peña ← J Fortier. *Bephratelloides cubensis* [Hymenoptera: Eurytomidae]. 7 Jul 89. USA: Homestead, Florida.

2879 M Feng (DN8805). *Diuraphis noxia* [Homoptera: Aphididae] on late spring barley. 27 Jul 88. USA: Parma, Idaho.

2880 M Feng (SG8701). *Schizaphis graminum* [Homoptera: Aphididae] on spring wheat. 17 Jul 87. USA: Parma, Idaho.

2881 M Feng (SG8801). *Schizaphis graminum* [Homoptera: Aphididae] on late spring barley. 28 Jul 88. USA: Parma, Idaho.

2882 M Feng (DN8806). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 19 Jul 88. USA: Parma, Idaho.

2883 [ARSEF 2336] M Feng (SGBB8601). *Schizaphis graminum* [Homoptera: Aphididae] on winter wheat. Jun 86. USA: Parma, Idaho.

2938 [CP 270] SP Wraight ← R da Silva Carvalho. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 8 Nov 88. Brazil: CNPAF, Goiânia, Goiás.

2942 [CP 274] SP Wraight ← MGA de Lima. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 28 Nov 88. Brazil: CNPAF, Goiânia, Goiás.

2943 [CP 275] SP Wraight ← SM dos Santos and DR Sosa Gomez. [Hymenoptera: Vespidae]. 8 Dec 88. Brazil: CNPAF, Goiânia, Goiás.

2944 [CP 276] SP Wraight ← LG Leite. [Hymenoptera: Vespidae]. 16 Dec 88. Brazil: CNPAF, Goiânia, Goiás.

2945 [CP 290] SP Wraight ← SB Alves. *Anthonomus grandis* [Coleoptera: Curculionidae]. 1988. Brazil: Piracicaba, São Paulo.

2946 [CP 281] SP Wraight ← SB Alves. *Anthonomus grandis* [Coleoptera: Curculionidae]. 1988. Brazil: Piracicaba, São Paulo.

2953 [UAF 189] DC Steinkraus. Adult, *Musca domestica* [Diptera: Muscidae]. 21 Jul 89. USA: dairy farm, Cayuga County, New York.

2957 CENARGEN (CG 145). Rec'd 14 Mar 90. Brazil: Manaus, Amazonas.

2961 CENARGEN (CG 165). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.

2962 CENARGEN (CG 166). Egg, *Schirius* sp. [Lepidoptera: Saturniidae]. Rec'd 14 Mar 90. Brazil: Curitiba, Paraná.

2972 K Ostrovska. *Phlebotomus papatasii* [Diptera: Psychodidae]. Rec'd 1 Oct 91. England: laboratory colony, London School for Tropical Medicine & Hygiene, London.

2976 DM Schmidt. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. 14 Mar 90. USA: Centre County, Pennsylvania.

2983 T Searle (CW1). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.

2984 T Searle (CW2). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.

2985 T Searle (CW3). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1989. Canada: Saint-Jean, Québec.

2986 T Searle (CW4). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1989. Canada: Saint-Jean, Québec.

2987 T Searle (LD1). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.

2988 T Searle (LD2). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.

2989 T Searle (LD3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.

2990 T Searle (LD4). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.

2991 T Searle (LD5). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.

3018 CENARGEN (CG 68). *Forficula auricularia* [Dermaptera: Forficulidae]. Apr 88. Brazil: Brasília, Federal District.

3019 CENARGEN (CG 69). *Deois flavopicta* [Homoptera: Cercopidae]. Apr 88. Brazil: Brasília, Federal District.

3020 CENARGEN (CG 86). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 20 Jul 90. Brazil: Pernambuco.

3037 W Mechaber (weevil#2354). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Gaylussacia baccata*. 20 May 90. USA: Carver, Massachusetts.

3040 WE Jones (SHB). [Coleoptera: Scolytidae] inside macadamia nut kernel. May 90. USA: Kona, Hawaii, Hawaii.

3041 WE Jones (499v2). *Reticulitermes flavipes* [Isoptera: Rhinotermitidae]. Rec'd 7 Aug 90. Canada: Toronto, Ontario.

3042 WE Jones (Hara). Phylum Nemata, Class Secernentia. Rec'd 7 Aug 90. USA: Hawaii, Hawaii.

3055 [MAF F6] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: South Island.

3063 [MAF F13] T Glare. *Sitona* sp. [Coleoptera: Curculionidae]. Rec'd Oct 90. New Zealand: South Island.

3065 [MAF F28] T Glare. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd Oct 90. New Zealand: South Island.

3066 [MAF F29] T Glare. *Paropsis charybdis* [Coleoptera: Chrysomelidae]. Rec'd Oct 90. New Zealand: South Island.

3070 [MAF F33] T Glare. *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: Christchurch, South Island.

3086 J Peña ← H Glenn. *Leptoglossus fulvicornis* [Hemiptera: Coreidae] on holly. 7 Sep 90. USA: Homestead, Florida.

3098 L Loch ← G Albuquerque. *Oryzophagus oryzae* [Coleoptera: Curculionidae] on rice. Rec'd 29 Oct 90. Brazil: Pôrto Alegre, Rio Grande do Sul.

3111 DW Watson ← L Meinke. *Diabrotica virgifera* [Coleoptera: Chrysomelidae]. 13 Sep 90. USA: Mead, Nebraska.

3112 DW Watson ← JK Cawthra. [Coleoptera: Staphylinidae] originally from beef feed lot. 10 Sep 90. USA: laboratory colony, Lincoln, Nebraska.

3113 [CIRI Anderson Isolate] LC Lewis. Soil isolate passed through *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Apr 90. Lab. manipulation: Iowa State Univ. Research Farm.

3120 G Mercadier and TJ Poprawski (8851). [Homoptera: Aphididae] on *Senecio* sp. 10 Jun 88. France: Béhoust, Yvelines.

3121 G Mercadier and TJ Poprawski (8852). [Homoptera: Aphididae] on *Urtica* sp. 10 Jun 88. France: Garancières, Yvelines.

3153 G Mercadier and TJ Poprawski (8809A). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Beypazari, Ankara.

3154 G Mercadier and TJ Poprawski (8809B). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Beypazari, Ankara.

3155 G Mercadier and TJ Poprawski (8809C). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Akyurt, Ankara.

3156 G Mercadier and TJ Poprawski (8809D). *Diuraphis noxia* [Homoptera: Aphididae] on barley. Jun 88. Turkey: Akyurt, Ankara.

3157 G Mercadier and TJ Poprawski (8809E). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Güdül, Ankara.

3158 G Mercadier and TJ Poprawski (8809G). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 13 Jun 88. Turkey: Karasar, Ankara.

3166 G Mercadier and TJ Poprawski (8835A). *Diuraphis noxia* [Homoptera: Aphididae] on barley. Jun 88. Turkey: Beypazari, Ankara.

3167 G Mercadier and TJ Poprawski (8835B). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 13 Jun 88. Turkey: Ayas, Ankara.

3168 G Mercadier and TJ Poprawski (8835C). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 12 Jun 88. Turkey: Sirkeli, Ankara.

3169 G Mercadier and TJ Poprawski (8835D). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 13 Jun 88. Turkey: Urus.

3181 GW Riethmacher (B37a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 12 Mar 90. Philippines: Plaridel, Quezon.

3197 GW Riethmacher (Bet1). [Coleoptera] on potatoes. 12 Oct 90. Philippines: La Trinidad, Benguet.

3198 GW Riethmacher (Bet2). [Coleoptera] on potatoes. 12 Oct 90. Philippines: La Trinidad, Benguet.

3199 GW Riethmacher (Bet3). [Coleoptera] on potatoes. 12 Oct 90. Philippines: La Trinidad, Benguet.

3215 G Mercadier and TJ Poprawski (8854 (second form)). Reisolate of ARSEF 3122 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 27 Nov 90. Lab. manipulation.

3216 LK Rieske. *Thrips calcaratus* [Thysanoptera: Thripidae]. Summer 91. USA: Rusk County, Wisconsin.

3219 [CP 478(479?)] DW Roberts ← JM Gomes. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Rec'd 8 Feb 91. Brazil.

3220 LA Lacey. *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd Feb 91. Portugal.

3285 J Gutierrez Samperio (1) ← ERD Reyes. *Atta* sp. [Hymenoptera: Formicidae]. 1987. Mexico: Monterrey, Nuevo León.

3286 J Gutierrez Samperio (2) ← ERD Reyes. *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 1987. France: Montpellier, Hérault.

3287 J Gutierrez Samperio (3) ← ERD Reyes. *Diabrotica* sp. [Coleoptera: Chrysomelidae] on corn. 1988. Mexico: Colima.

3288 J Gutierrez Samperio (4) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.

3309 J Gutierrez Samperio (25) ← ERD Reyes. *Diabrotica balteata* [Coleoptera: Chrysomelidae] on corn. 1990. Mexico: Colima.

3310 J Gutierrez Samperio (26) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Comala, Colima.

3311 J Gutierrez Samperio (27) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.

3312 J Gutierrez Samperio (28) ← ERD Reyes. [Homoptera: Membracidae] on sugar cane. 1990. Mexico: Cuauhtémoc, Colima.

3385 I Majchrowicz (25-a). *Myzus persicae* [Homoptera: Aphididae] on potato. 11 Jul 91. USA: Orchard Farm, Yakima, Washington.

3386 I Majchrowicz (23). [Coleoptera: Carabidae] nr. potato plants. 3 Jul 91. USA: garden nr. USDA laboratory, Yakima, Washington.

3387 I Majchrowicz (40). *Myzus persicae* [Homoptera: Aphididae] on cabbage. Jul 91. USA: laboratory cages, Yakima, Washington.

3403 MS Goettel. *Ceutorhynchus litura* [Coleoptera: Curculionidae]. Rec'd 6 Mar 92.

3404 AE Hajek (24). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: C & O Canal, Allegany County, Maryland.

3405 AE Hajek (18). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: Koontz Lokey, Page County, Virginia.

3437 [CATIE 1] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Rec'd 28 Oct 91. Costa Rica: Turrialba, Cartago.

3438 [CATIE 2] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

3439 [CATIE 3] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

3441 [CATIE 5] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

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3442 [CATIE 6] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

3443 [CATIE 7] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.

3444 [CATIE 8] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

3445 [CATIE 9] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.

3446 [CATIE 10] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

3447 [CATIE 11] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Jul 91. Costa Rica: Turrialba, Cartago.

3448 [CATIE 12] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.

3449 [CATIE 13] TG Zoebisch. [Hemiptera: Miridae] on *Erythrina* sp. Apr 91. Costa Rica: Turrialba, Cartago.

3450 [CATIE 14] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Jul 91. Costa Rica: Turrialba, Cartago.

3451 [CATIE 15] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Jul 91. Costa Rica: Turrialba, Cartago.

3452 [CATIE 16] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Jul 91. Costa Rica: Turrialba, Cartago.

3453 [CATIE 17] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.

3454 [CATIE 18] TG Zoebisch. [Hemiptera: Miridae] on *Erythrina* sp. Apr 91. Costa Rica: Turrialba, Cartago.

3455 [CATIE 19] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Jul 91. Costa Rica: Turrialba, Cartago.

3456 [CATIE 20] TG Zoebisch. [Hemiptera: Miridae] on *Erythrina* sp. Apr 91. Costa Rica: Turrialba, Cartago.

3457 [CATIE 21] TG Zoebisch. [Coleoptera: Languriidae] on *Macadamia integrifolia*. Sep 91. Costa Rica: Turrialba, Cartago.

3460 SV Krueger (540). Soil. Jun 91. USA: Smith Forest, Trumansburg, New York.

3462 MS Goettel (MISI). Soil. 12 Jul 91. Canada: nr. Magrath, Alberta.

3513 I Quintela (VL5). Rec'd 13 Dec 91.

3514 I Quintela (VL6). Rec'd 13 Dec 91. Colombia.

3515 I Quintela (VL7). Rec'd 13 Dec 91.

3516 I Quintela. Rec'd 13 Dec 91.

3527 AE Hajek (58a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: nr. Ruckersville, Greene County, Virginia.

3528 AE Hajek (61c). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 91. USA: Belle Acre, Allegheny County, Pennsylvania.

3529 AE Hajek (73a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: Resurrection, Prince Georges County, Maryland.

3530 AE Hajek (220b). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: nr. Picnic Run, Allegany County, Maryland.

3534 SM DeFazio and PD McKown (C-7). *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Nov 91.

3543 M Brownbridge (B-33). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 19 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3607 IMI (I91-612). *Anacridium aegyptium*. Rec'd 26 Feb 92. Crete.

3620 IMI (Mycotech). *Melanoplus* sp. [Orthoptera: Acrididae]. Rec'd 26 Feb 92. USA.

3622 IMI (331275). [Orthoptera]. Rec'd 26 Feb 92. USA.

3667 AE Hajek (BFMS). [Coleoptera: Curculionidae]. Apr 91. USA: New York.

3681 LS Osborne. Organic Naturalis. Rec'd Apr 92.

3716 RA LeBrun ← J Hanula (C-2). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 92.

3717 RA LeBrun ← J Hanula (C-3). *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 91.

3734 SB Alves (447). Rec'd 12 Jun 92.

***Beauveria brongniartii* (Saccardo) Petch**
[Hyphomycetes]

Major synonym: *Beauveria tenella* (Saccardo) MacLeod.

32 JE Henry. [Orthoptera: Acrididae]. 12 Jul 73. USA: Montana.

617 ATCC (26156) ← P Ferron (6). Larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Rec'd 27 May 81. France.

656 DW Roberts (101481-5). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 14 Oct 81. PR China: Hunan.

678 DW Roberts (101481-4-1). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 14 Oct 81. PR China: Hunan.

979 [GCRI 64-82] RA Hall ← J Fargues. *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 83. France.

985 J Aoki (Beau. 22) ← K Katagiri ← T Kushida. *Anomala costata* [Coleoptera: Scarabaeidae]. Nov 71. Japan: Hachioji, Tokyo Prefecture.

1067 TJ Poprawski ← S Keller (117). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 10 May 82. Switzerland: Buhwil, Thurgau.

1068 TJ Poprawski ← S Keller (118). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 10 May 82. Switzerland: Buhwil, Thurgau.

1069 TJ Poprawski ← S Keller (119). *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd Feb 84. Switzerland. Mixture of 3 strains.

1070 TJ Poprawski ← S Keller (120). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Jul 82. Switzerland: Breitenloo, Thurgau.

1071 TJ Poprawski ← S Keller (125). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 83. Switzerland: Bleiken, Thurgau.

1072 TJ Poprawski ← S Keller (126). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 83. Switzerland: Bleiken, Thurgau.

1076 S Keller (131). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 83. Switzerland: Istighofen, Thurgau.

1077 S Keller (134). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 8 Dec 83. Switzerland: Bleiken, Thurgau.

1360 S Balazy (1599). Rec'd 19 May 84. Poland.

1366 S Balazy (1594d). Rec'd 19 May 84. Poland.

1431 MC Rombach (A). *Niphonoclea* sp. [Coleoptera: Cerambycidae] on forest litter. Apr 84. Philippines: UPLB Botanical Garden, Los Baños, Manila.

1676 M Shimazu (F-77). *Anomala costata* [Coleoptera: Scarabaeidae]. 11 Oct 71. Japan: Daimon, Nagano Prefecture.

1680 M Shimazu (F-313). *Psacothea hilaris* [Coleoptera: Cerambycidae]. Oct 81. Japan: Takao, Tokyo Prefecture.

1829 [ARSEF 1481 (lost)] SB Alves (258). *Castnia licus* [Lepidoptera: Castniidae] on sugar cane. Acc'd 29 Jan 85. Brazil: Pernambuco.

1830 [ARSEF 1482 (lost)] SB Alves (210). *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. Acc'd 29 Jan 85. Brazil: São Paulo.

1871 S Keller (165). Rec'd 27 Mar 85.

1872 S Keller (166). Rec'd 27 Mar 85.

1873 S Keller (167). Rec'd 27 Mar 85.

1874 S Keller (168). Rec'd 27 Mar 85.

1875 S Keller (169). Rec'd 27 Mar 85.

2401 [ESALQ 478] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Oct 86. Brazil: Mato Grosso.

2660 C Gopalakrishnan (31). Adult, [Coleoptera]. Rec'd Nov 88. India.

3054 [MAF F1] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: South Island.

Beauveria caledonica Bissett & Widden
[Hymomycetes]

2567 CCFC (DAOM 191855) ← P Widden. Natural heather moors, A1 horizon. Rec'd 17 May 88. Scotland: Banchory, Grampian.

Beauveria velata Samson & Evans
[Hymomycetes]

2998 CBS (607.80) ← HC Evans. Larva, [Lepidoptera]. Rec'd 22 May 90. Ecuador.

Beauveria vermiconia de Hoog & Rao
[Hymomycetes]

2922 CBS (645.74). Volcanic ash soil. 1974. Chile. CULTURE EX TYPE.

Beniowskia sp.
[Hymomycetes]

2751 GW Riethmacher (EB1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 89. Philippines: La Trinidad, Benguet.

Calcarisporium ovalisporum (Petch) de Hoog
[Hymomycetes]

Isolated as a mycoparasite from *Hirsutella citriformis*. This fungus is not itself pathogenic for insects.

1907 MC Rombach (2). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

2035 MC Rombach (Cov-2). *Hirsutella citriformis*. 1985. Solomon Islands.

2036 MC Rombach (Cov-5). *Hirsutella citriformis*. 1985. Solomon Islands.

Candida sp.

[Hymomycetes]

All of these strains grow as yeasts with facultative capacities to attack cockroaches. It remains uncertain whether they can be primary pathogens or depend upon the host to be stressed, wounded, or otherwise compromised.

1857 [NRRL Y-12965] JM Verrett. *Periplaneta americana* [Dictyoptera: Blattidae]. Acc'd 21 Feb 85. USA: laboratory colony, Dillard University, New Orleans, Louisiana.

1877 [NRRL Y-12966] TB Clark. *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd 12 Oct 83. USA: laboratory colony, Beltsville, Maryland.

1924 H deBarjac (1). *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd Jun 85. laboratory colony.

1925 H deBarjac (4). *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd Jun 85. laboratory colony.

1926 H deBarjac (5). *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd Jun 85. laboratory colony.

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Catenaria anguillulae Conidiobolus sp.

Catenaria anguillulae Sorokin [Chytridiomycetes: Blastocladiales]

2015 [ATCC 58382] BA Jaffee (Ca2). *Xiphinema* sp.
[Dorylaimida: Longidoridae]. 18 Jun 84. USA:
Adams County, Pennsylvania.

Cladosporium sp. [Hyphomycetes]

3706 LA Lacey (052A). Adult, [Homoptera: Aleyrodidae].
21 Mar 92. Nepal: Katmandu.

Cladosporium cladosporioides (Fresenius) de Vries [Hyphomycetes]

3085 J Peña. *Eotetranychus* sp. [Acari: Tetranychidae] on
Cassava sp. 30 Aug 90. USA: Homestead, Florida.
3375 [Puerto Rico 04-91] F Gallardo ← G Mejía. Adult,
nymphs & pupa, *Thrips palmi* [Thysanoptera:
Thripidae] on eggplant, *Solanum melongena*. Jun 91.
USA: Río Piedras, Puerto Rico.
3463 D Wilson ← T Whitham. Gall, *Pemphigus betae*
[Homoptera: Aphididae] on narrowleaf cottonwood,
Populus angustifolia. Rec'd 5 Nov 91. USA: Arizona.
Contains *Verticillium ?lecanii* as mycoparasite.

Coelomycidium simuli Debaisieux [Chytridiomycetes: Chytridiales]

Cultures are vegetative only. No zoospores have been
induced by any medium or treatment used.

218 LS Bauer. *Simulium venustum* [Diptera: Simuliidae].
24 May 78. USA: Otter Pond Creek, Milford, Maine.

Coemansia sp.

[Zygomycetes: Kickxellales]

2452 GL Benny (21A). Rec'd 31 Aug 87.

Conidiobolus sp. [Zygomycetes: Entomophthorales]

These strains include a heterogeneous assortment of
fungi isolated as saprobes and as zoopathogens. Some
may represent undescribed new species. Identifications of
Conidiobolus species are made difficult by the relative lack
of taxonomic characters and of any modern taxonomic
attention.

Caution: Strains derived from mammalian mycoses
should be treated as potentially hazardous; observe
handling precautions noted for *Conidiobolus coronatus*.

92 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 76. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
93 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 76. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
94 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 76. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.

147 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 77. USA: Carroll, Maine.
148 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 77. USA: forest, Maine.
211 DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Mar 78. India: insectary, Hyderabad, Andhra Pradesh.
391 S Keller (21). [Homoptera: Cercopidae]. Rec'd 18 Oct 79. Switzerland.
517 DW Roberts (82380-19). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Aug 80. Malaysia: Bumbong Lima, Icepala Batas, Wellesley Province.
522 DW Roberts (82180-7b). *Nilaparvata lugens* [Homoptera: Delphacidae] on leaves. 21 Aug 80. Malaysia.
564 RS Soper (8133-1/BPH-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
595 RS Soper (81227-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Feb 81. Indonesia: Bantul District, Yogyakarta, Java.
596 RS Soper (81226-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Feb 81. Indonesia: Bantul District, Yogyakarta, Java.
604 RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
605 RS Soper (8133-1). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
606 RS Soper (8133-1). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
1426 RS Soper (8465-1). [Homoptera: Aphididae] on rose. 6 May 84. Yugoslavia: Plant Protection Institute, Belgrade.
1444 M Smith (L05 and 001). Soil/plant detritus. 1984. England: marshy area by pool, U. of Keele, Keele, Staffordshire.
1445 M Smith (K13 and 004). Soil/plant detritus. 1984. England: turf behind Keele Hall, U. of Keele, Keele, Staffordshire.
1477 [CNPAF 84-04-25-2; CP 167] SM dos Santos. [Orthoptera: Tettigoniidae]. 25 Apr 84. Brazil: CNPAF, Goiânia, Goiás.
1485 M Smith (N01 and 141). Soil/plant detritus. 1984. England: grazed pasture behind Keele Hall, U. of Keele, Keele, Staffordshire.
1486 M Smith (O08 and 017). Soil/plant detritus. 1984. England: wheat field, U. of Keele, Keele, Staffordshire.

1487 M Smith (Q01 and 119). Soil/plant detritus. 1984. England: grazed pasture behind Keele Hall, U. of Keele, Keele, Staffordshire.

1488 M Smith (I01 and 020). Soil/plant detritus. 1984. England: grazed pasture behind Keele Hall, U. of Keele, Keele, Staffordshire.

1672 GO Poinar ← GM Thomas. *Porcellio* sp. [Isoptera: Oniscoidea]. 5 Jun 84. USA: California.

1967 T Burger. *Schizaphis graminum* [Homoptera: Aphididae]. Aug 85. USA: laboratory colony, APHIS-PPQ, Niles, Michigan.

2130 IL Sivcev (160/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 2 Oct 85. Yugoslavia: Zemun, Belgrade.

2147 MA Naves. *Deois* sp. [Homoptera: Cercopidae]. 4 Mar 86. Brazil: Mato Grosso.

2148 MA Naves. *Deois flavopicta* [Homoptera: Cercopidae]. 21 Mar 86. Brazil: Mato Grosso.

2193 [CNPAF 86-5-19; CP 203] SM dos Santos. [Hymenoptera]. 19 May 86. Brazil: CNPAF, Goiânia, Goiás.

2494 J Eilenberg (KVL 15). [Diptera: Anthomyiidae]. 25 Jul 86. Denmark: Svanholm, Hornsherred.

2498 J Eilenberg (KVL 25). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 25 Aug 86. Denmark: Kattinge Vig, Roskilde.

2672 J Eilenberg (KVL 49). *Delia radicum* [Diptera: Anthomyiidae]. 2 Aug 88. Denmark: Roskilde.

2771 GW Riethmacher (C3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 11 Apr 89. Philippines: La Trinidad, Benguet.

2772 GW Riethmacher (C4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 89. Philippines: La Trinidad, Benguet.

2815 GW Riethmacher (C5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 89. Philippines: La Trinidad, Benguet.

2816 GW Riethmacher (C6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 9 Jun 89. Philippines: La Trinidad, Benguet.

2819 SR Sánchez Peña (4-2). *Solenopsis invicta* [Hymenoptera: Formicidae]. 5 Aug 89. USA: College Station, Texas.

2924 CDC (B-4742). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.

2925 CDC (B-4741). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.

2926 CDC (B-4743). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.

2927 CDC (B-4744). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.

2928 [UTMB 3109] L Pasarell. *Homo sapiens*. Rec'd 18 Sep 89. USA: Port Arthur, Texas.

3208 GW Riethmacher (C4.1a). *Plutella xylostella* [Lepidoptera: Plutellidae]. 16 Oct 90. Philippines: La Trinidad, Benguet.

3383 I Majchrowicz (18). *Aphis fabae* [Homoptera: Aphididae] on bean. 27 Jun 91. USA: Grandpa's garden, Granger, Washington.

3384 I Majchrowicz (25-b). *Myzus persicae* [Homoptera: Aphididae] on potato. 11 Jul 91. USA: Orchard Farm, Yakima, Washington.

3402 MS Goettel (17) ← G Pohl and D Yu. 30 Sep 91. Canada: Agriculture Canada Research Station, Lethbridge, Alberta.

3406 BJ Cochrane ← K Chernov (V). Soil. Rec'd 7 Oct 91. USA: mowed USF grounds by UPD, Tampa, Florida.

3407 BJ Cochrane ← K Chernov (VI). Soil. Rec'd 7 Oct 91. USA: mowed USF grounds by UPD, Tampa, Florida.

3409 BJ Cochrane ← K Chernov (Ruby Mine). Soil. Rec'd 7 Oct 91. USA: exposed mountainside, Franklin, North Carolina.

Conidiobolus adiaeetus Drechsler
[Zygomycetes: Entomophthorales]

451 [CBS 136.57; DS King C-23] ATCC (12589) ← C Drechsler. Plant detritus. USA: Maryland. CULTURE EX TYPE.

Conidiobolus bangalorensis Srinivasan & Thirumalachar
[Zygomycetes: Entomophthorales]

449 [HACC 190; IMI 118284; NRRL 3682] ATCC (16576) ← MC Srinivasan and MJ Thirumalachar. Plant detritus. 1966. India: Bangalore, Karnataka. CULTURE EX TYPE.

Conidiobolus brefeldianus Couch
[Zygomycetes: Entomophthorales]

452 ATCC (28847) ← DS King (C-31) ← CBS (141.39) ← JN Couch. USA: North Carolina. CULTURE EX TYPE.

Conidiobolus coronatus (Costantin) Batko
[Zygomycetes: Entomophthorales]
Major synonyms: *Entomophthora coronata* (Costantin) Kevorkian, *Conidiobolus villosus* Martin.

Caution: This species is known to cause human mycoses that are primarily tropical in occurrence and confined to the nasal passages and adjacent superficial areas. Avoid inhalation of conidia and do not handle cultures without gloves if unhealed cuts or abrasions are present. This species has low pathogenicity for mammals and should be relatively safe if handled with good microbiological technique.

205 ATCC (28691) ← DS King (75). Plant detritus. Rec'd 9 Mar 78. USA.

206 [IPLB 951.72] ATCC (32867) ← F Mariat. *Homo sapiens*. Rec'd 9 Mar 78. Nigeria.

274 BE Tucker (171). Soil from roots under *Helosis* sp. [Balanophoraceae]. Costa Rica: 9.783°N lat, 83.999°W long, elev. 1950 ft, Casa Mata.

349 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 16 Feb 79. Australia: Cairns, Queensland.

405 DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.

406 DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 79. Philippines: IRRI greenhouse, Parian, Calamba, Laguna.

418 DW Roberts (A). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.

419 DW Roberts (B). [Homoptera: Cicadellidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.

421 DW Roberts (E). [Homoptera: Cicadellidae]. Nov 79. Philippines: IRRI greenhouse, Parian, Calamba, Laguna.

422 DW Roberts (F). [Homoptera: Cicadellidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.

471 [DAR 30604] J Walker. Casing soil of *Agaricus brunneescens* [Hymenomycetes: Agaricales]. Apr 78. Australia: R.D. 67, nr. Rydalmere, McGrath's Hill, New South Wales.

511 DW Roberts (81380-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Aug 80. Philippines: IRRI, Los Baños, Manila.

512 DW Roberts (82180-4a). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Malaysia.

514 DW Roberts (82180-7c). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Malaysia.

520 DW Roberts (82380-20). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 23 Aug 80. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.

523 DW Roberts (82380-22). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Aug 80. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.

524 DW Roberts (82180-4c). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Malaysia.

525 DW Roberts (82880-11). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: rearing cage, Chainat Rice Exp. Sta., N of Bangkok, Khlong Luang.

528 DW Roberts (82980-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: NBRC cages.

563 RS Soper (8133-1/BPH-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.

565 RS Soper (8133-1/BPH-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.

567 RS Soper (81224-2). [Araneida]. 24 Feb 81. Indonesia: Diski Village, Medan District, Sumatera Utara.

597 RS Soper (8133-1). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.

655 DW Roberts (102381-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Oct 81. PR China: Guanzhou, Kwon Tung.

997 J Aoki (Ent. 11) ← M Shimazu. *Nilaparvata lugens* [Homoptera: Delphacidae]. Jul 76. Japan: Chikugo, Fukuoka Prefecture.

1147 LI Rivera-Vargas. *Volvariella volvacea* [Agaricales]. 1984. USA: Mayaguez, Puerto Rico.

1572 S Keller (490). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.

1573 S Keller (491). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.

1574 S Keller (493). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.

1575 S Keller (494). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.

1736 N Wilding (4). *Myzus persicae* [Homoptera: Aphididae] isolate (Wilding #3) passed through *Galleria mellonella* [Lepidoptera: Pyralidae] larva. Feb 69. Lab. manipulation.

1737 N Wilding (5). *Myzus persicae* [Homoptera: Aphididae] isolate (Wilding #3) passed through *Galleria mellonella* [Lepidoptera: Pyralidae] larva. Feb 69. Lab. manipulation.

1738 [ARSEF 96 (lost)] N Wilding (32) ← C Dedyver. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 3 Sep 84. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

1876 DG Holdom (2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 8 Mar 85. Indonesia: Cikampek, Jawa Barat, Java.

2715 J Newton ← M Masri. Male, *Equus caballus*. Mar 89. USA: Baton Rouge, Louisiana.

2730 GW Riethmacher (C1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 89. Philippines: La Trinidad, Benguet.

2812 M Feng (MD8904). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2813 M Feng (MD8905). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2814 M Feng (MD8906). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

3087 M Wheeler ← RP Korf. [Dacrymycetales]. 12 Sep 90. USA: Lloyd/Cornell-Ringwood Nat. Pres., Ithaca, New York.

3109 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 25 Sep 90. USA: Hoffman field #4E, Catherine, New York.

3222 LS Osborne. *Frankliniella occidentalis* [Thysanoptera: Thripidae]. Rec'd 14 Mar 91. USA: greenhouse, IFAS, Univ. of Florida, Apopka, Florida.

3379 K Ostrovska (4) ← PG Lawlor. *Lutzomyia* sp. [Diptera: Psychodidae]. Jul 91. Guatemala: Tical, Petén.

3414 K Ostrovska (21) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

3415 K Ostrovska (22) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

Conidiobolus firmipilleus Drechsler
[Zygomycetes: Entomophthorales]

2731 GW Riethmacher (C2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 89. Philippines: La Trinidad, Benguet.

Conidiobolus lachnodes Drechsler
[Zygomycetes: Entomophthorales]

700 DW Roberts (102381-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Oct 81. PR China: Guangzhou, Kwon Tung.

Conidiobolus lamprauges Drechsler
[Zygomycetes: Entomophthorales]

2338 CC Brown. 15 yr. old Arabian m, *Equus caballus*. Dec 86. USA: Baton Rouge, Louisiana.

Conidiobolus nr. *coronatus* (Costantin) Batko
[Zygomycetes: Entomophthorales]

These strains produce secondary microconidia; their morphologies match the description of *C. coronatus* in every way except that no villose conidia have been observed. Positive identification as *C. coronatus* requires observation of villose conidia.

Caution: All precautions about handling *C. coronatus* should be observed with these strains.

598 RS Soper (8135). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Mar 81. Indonesia: greenhouse, Bogor, Jawa Barat, Java.

599 RS Soper (81227-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Feb 81. Indonesia: Ngaglik Village, Sleman District, Yogyakarta, Java.

600 RS Soper (81227-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Feb 81. Indonesia: Pendo Wo Har Djo, Sleman District, Yogyakarta, Java.

602 RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.

1742 DW Roberts (26102a) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.

1743 DW Roberts (26104) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.

1884 [CP 173] DW Roberts ← J Brunes. *Mocis latipes* [Lepidoptera: Noctuidae]. 31 Jan 85. Brazil: CNPAF, Goiânia, Goiás.

Conidiobolus obscurus (Petch) Hall & Dunn
[Zygomycetes: Entomophthorales]
Major synonym: *Entomophthora thaxteriana*

67 [IPLB 602] G Remaudière. *Myzus ascalonicus* [Homoptera: Aphididae]. 13 May 75. France.

74 RG Kenneth (3043) ← ATCC (24418) and CBS (182.60) ← I Hall. *Theroaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. 28 Dec 75. Israel: Rehovot, Central District. CULTURE EX TYPE.

97 [CSIRO EM529] N Wilding (6) ← C Dedryver. *Metopolophium dirhodum* [Homoptera: Aphididae]. France: nr. Rennes, Le Rheu, Ille-et-Vilaine.

121 [IPLB 20] JP Latgé and G Remaudière. *Uroleucon* sp. [Homoptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.

122 [IPLB 21] JP Latgé and G Remaudière. *Uroleucon* sp. [Homoptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.

124 [IPLB 54] JP Latgé and G Remaudière. *Aphis* sp. [Homoptera: Aphididae] on *Cornus* sp. [Cornaceae]. 26 Aug 76. Canada: Saint-Gédéon, Québec.

125 [IPLB 66] JP Latgé and G Remaudière. *Rhopalosiphum padi* [Homoptera: Aphididae] on *Prunus pennsylvanicus* [Rosaceae]. 28 Aug 76. Canada: Mt. Tremblant Provincial Park, Québec.

129 N Wilding (10). *Myzus persicae* [Homoptera: Aphididae] on potato. 11 Aug 76. USA: Rogers Farm, Stillwater, Maine.

133 [ARSEF 355; CSIRO EM543; IPLB 542] G Remaudière ← JP Latgé. *Aphis armata* [Homoptera: Aphididae] on *Digitalis purpurea*. 26 Jul 74. France: Le Rosskopf, Moselle.

174 FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae] on potato. 7 Jul 77. USA: Rogers Farm, Stillwater, Maine.

175 [CSIRO EM558] FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae] on potato. 7 Jul 77. USA: Rogers Farm, Stillwater, Maine.

182 FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 10 Aug 77. USA: Maine.

243 I Majchrowicz. [Homoptera: ?Aphididae]. Rec'd 6 Sep 78. Poland: Szczecin.

Fungal Cultures

Conidiobolus obscurus *Conidiobolus paulus*

354 [ARSEF 824; CSIRO EM535] RJ Milner. *Acyrthosiphon kondoi* [Homoptera: Aphididae]. May 78. Australia: Glen Innes, New South Wales.

355 [ARSEF 133; IPLB 542] CSIRO (EM543) ← JP Latgé. *Aphis armata* [Homoptera: Aphididae] on *Digitalis purpurea*. 26 Jul 74. France: Le Rosskopf, Moselle.

434 [FPMI 667] JP Latgé ← IPLB (722) or (542 (=ARSEFs 133 & 355)). [Homoptera: Aphididae]. Rec'd 7 Mar 80. France.

824 [ARSEF 354; CSIRO EM535] RJ Milner. *Acyrthosiphon kondoi* [Homoptera: Aphididae]. May 78. Australia: Glen Innes, New South Wales.

832 CSIRO (EM566) ← PJ Cameron. *Acyrthosiphon pisum* [Homoptera: Aphididae]. 25 May 79. Lab. manipulation.

834 CSIRO (EM591) ← D Crawford. *Acyrthosiphon pisum* [Homoptera: Aphididae] on lucerne. 25 Jun 80. Australia: Riverina Agricultural College, Wagga Wagga, New South Wales.

839 CSIRO (EM629) ← G Lutton. *Acyrthosiphon kondoi* [Homoptera: Aphididae] on lucerne "condura". 17 Jun 81. Australia: nr. Cooma, Umerella Station, New South Wales.

1131 [J Aoki Ent. 9; ARSEF 995 (deaccessioned)] M Shimazu (F-25). *Rhopalosiphum padi* [Homoptera: Aphididae]. Apr 76. Japan: Chikugo, Fukuoka Prefecture.

1146 M Shimazu (F-382). *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 4 Apr 84. Japan: Shizuoka Prefecture.

1741 N Wilding (90). *Acyrthosiphon pisum* [Homoptera: Aphididae]. Jan 79. Lab. manipulation.

2504 J Eilenberg (KVL 29). *Acyrthosiphon pisum* [Homoptera: Aphididae]. Apr 87. Denmark: Karlebo.

3080 SP Wraight. *Rhopalosiphum padi* [Homoptera: Aphididae]. 22 Jun 90. USA: irrigated wheat field, Piedmont Organic Produce Farm, Wellington, Colorado.

3088 M Feng (MTRM9001). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 31 Jul 90. USA: Bozeman, Montana.

3089 M Feng (MTRM9002). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 31 Jul 90. USA: Bozeman, Montana.

3090 M Feng (MTRM9003). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 31 Jul 90. USA: Bozeman, Montana.

3091 M Feng (MTRM9004). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 7 Aug 90. USA: Bozeman, Montana.

3092 M Feng (MTMD9002). *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring grain crop. 17 Aug 90. USA: Bozeman, Montana.

3099 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 20 Sep 90. USA: Hoffman field #4B, Catherine, New York.

3130 K Hural (GF-2). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.

3131 K Hural (GF-3). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.

3132 K Hural (GF-4). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.

3133 K Hural (GF-5). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.

3134 K Hural (GF-6). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.

3135 K Hural (GF-7). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.

3137 K Hural (Hoff-2). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

3138 K Hural (Hoff-3). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

3139 K Hural (Hoff-4). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

3140 K Hural (Hoff-5). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

3141 K Hural (Hoff-6). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

***Conidiobolus osmodes* Drechsler**
[Zygomycetes: Entomophthorales]

79 [FPMI 695] RG Kenneth (3) or (3080) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 76. Israel: Sedé Eliyahu.

447 [ARSEF 193 (lost); CBS 155.56; RG Kenneth 3123; DS King M-7] ATCC (12590) ← C Drechsler. Decaying vegetable detritus. 20 Dec 50. USA: Laplace, Louisiana. CULTURE EX TYPE.

***Conidiobolus paulus* Drechsler**
[Zygomycetes: Entomophthorales]

450 [CBS 140.57] ATCC (12942) ← C Drechsler. Plant detritus. 18 Nov 54. USA: Park Falls, Wisconsin. CULTURE EX TYPE.

Conidiobolus pseudapiculatus Keller

[Zygomycetes: Entomophthorales]

This species is morphologically similar to *Batkoia apiculata* (q.v.) in the size and shape of its primary conidia and production of stout rhizoids with a discoid holdfast.

196 CBS (207.66) ← M Gustafsson.
1662 [IPLB 698] S Keller (478) ← JP Latgé. Rec'd 16 Oct 84.
1664 [IPLB 877] S Keller (480) ← JP Latgé. Rec'd 16 Oct 84.
1665 [IPLB 1027] S Keller (482) ← JP Latgé. Rec'd 16 Oct 84.
2493 J Eilenberg (KVL 6). *Psila rosae* [Diptera: Psilidae]. 25 May 86. Denmark: Strandholm, Faarevejle.
2496 J Eilenberg (KVL 11). *Psila rosae* [Diptera: Psilidae]. 2 Jun 86. Denmark: Strandholm, Faarevejle.
2497 J Eilenberg (KVL 21). *Psila rosae* [Diptera: Psilidae]. 11 Aug 86. Denmark: Strandholm, Faarevejle.
2502 J Eilenberg (KVL 24). *Psila rosae* [Diptera: Psilidae]. Aug 86. Denmark: Strandholm, Faarevejle.

Conidiobolus pumilus Drechsler

[Zygomycetes: Entomophthorales]

453 [CBS 152.56; DS King C-32] ATCC (12584) ← C Drechsler. Plant detritus. 28 Feb 52. USA: Arlington, Virginia. CULTURE EX TYPE.

Conidiobolus rhyosporus Drechsler

[Zygomycetes: Entomophthorales]

448 [CBS 157.56] ATCC (12588) ← C Drechsler. Decaying vegetable detritus. USA: Laplace, Louisiana. CULTURE EX TYPE.

Conidiobolus thrombooides Drechsler

[Zygomycetes: Entomophthorales]

Major synonyms: *Entomophthora virulenta* Hall & Dunn, *Entomophthora pyriformis* Thoizon, *Entomophthora destruens* Weiser & Batko.

2 [ARSEF 3364; CSIRO EM570] FR Holbrook. *Myzus persicae* [Homoptera: Aphididae]. May 72. USA: greenhouse, Aroostook State Farm, Presque Isle, Maine.
5 RS Soper. Adult, [Diptera: Heliomyzidae]. 31 Jul 72. USA: Aroostook State Farm, Presque Isle, Maine.
15 [ARSEF 115, 208, 3360, 3361; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] ATCC (14270) ← I Hall. *Theroaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. Rec'd 2 Oct 72. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
22 RS Soper ← JE Henry. [Orthoptera: Acrididae]. 1973. USA: Bozeman, Montana.
29 RS Soper ← I Hall. *Theroaphis maculata* [Homoptera: Aphididae]. USA: California.

39 RS Soper. *Myzus persicae* [Homoptera: Aphididae]. 12 Mar 73. USA: State of Maine Potato Field, Homestead, Florida.
40 [ARSEF 3362; RG Kenneth 3024] *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 1973. USA: Aroostook State Farm, Presque Isle, Maine.
41 [ARSEF 3359; RG Kenneth 3023] *Myzus persicae* [Homoptera: Aphididae]. Aug 74. USA: Aroostook State Farm, Presque Isle, Maine.
42 [ARSEF 117 (lost); RG Kenneth 3025] N Wilding (3). *Aphis fabae* [Homoptera: Aphididae]. Jul 73. England: field collection, Woburn, Bedfordshire.
57 RS Soper. *Myzus persicae* [Homoptera: Aphididae]. 29 Aug 75. USA: Rogers Farm, Stillwater, Maine.
58 [Homoptera: Aphididae]. 18 May 75. Commonwealth of Independent States.
59 [Homoptera: Aphididae]. 25 Jul 75. Commonwealth of Independent States.
63 [CSIRO EM557] *Myzus persicae* [Homoptera: Aphididae]. 27 Jul 75. Commonwealth of Independent States.
64 27 Jul 75. Commonwealth of Independent States.
70 [ARSEF 3363; IPLB 4] G Remaudière ← R Krejzova. *Culex pipiens pipiens* [Diptera: Culicidae]. Czechoslovakia.
73 [CSIRO EM534; FPMI 28] RG Kenneth (3040) ← ATCC (24419) ← DM MacLeod ← G Thoizon. *Rhopalosiphum insertum* [Homoptera: Aphididae]. Rec'd 18 Jan 76. France: Val-de-Marne, La Varenne.
83 [CSIRO EM551, EM572] RG Kenneth (E.a. 38) or (3086) ← A Uziel. *Aphis gossypii* [Homoptera: Aphididae] on pomegranate. 1976. Israel: Sedé Eliyahu.
84 [ARSEF 85] I Majchrowicz (14 10.6). Reisolate of ARSEF 22. Rec'd 6 Jul 76. Lab. manipulation.
85 [ARSEF 84] I Majchrowicz (14 10.6). Reisolate of ARSEF 22. Rec'd 6 Jul 76. Lab. manipulation.
86 [ARSEF 87] I Majchrowicz (17 16.6). [Diptera]. Sep 74. Poland: Wielkopolski National Park.
87 [ARSEF 86] I Majchrowicz (17 16.6). [Diptera]. Sep 74. Poland: Wielkopolski National Park.
99 N Wilding (8) ← EG Voronina. *Myzus persicae* [Homoptera: Aphididae]. 1963. Commonwealth of Independent States: St. Petersburg, Russia.
100 [CSIRO EM552, EM573] N Wilding (9) ← EG Voronina. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 1963. Commonwealth of Independent States.
101 [ARSEF 1733] N Wilding (1). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
102 [ARSEF 1734, 363; CSIRO EM503] N Wilding (2). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

115 [ARSEF 15, 208, 3360, 3361; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] ATCC (14270) ← I Hall. *Theroaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.

120 [IPLB 19] JP Latgé and G Remaudière. *Uroleucon* sp. [Homoptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.

194 I Ben-Ze'ev (38). *Aphis gossypii* [Homoptera: Aphididae] on pomegranate tree. Apr 76. Israel: Sedé Eliyahu.

208 [ARSEF 115, 15, 3360, 3361; ATCC 14270; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] G Hartmann ← I Hall. *Theroaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. Rec'd Mar 78. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.

242 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.

244 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.

245 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.

246 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.

247 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.

248 I Majchrowicz ← EG Voronina. [Homoptera: Aphididae]. 25 Jul 78. Commonwealth of Independent States.

249 I Majchrowicz ← EG Voronina. [Homoptera: Aphididae]. 25 Jul 78. Commonwealth of Independent States.

250 I Majchrowicz ← EG Voronina. [Homoptera: Aphididae]. 25 Jul 78. Commonwealth of Independent States.

363 [ARSEF 102, 1734] CSIRO (EM503) ← N Wilding (2). *Cavariella theobaldi* [Homoptera: Aphididae]. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

630 I Majchrowicz (106). *Aphis fabae* [Homoptera: Aphididae]. 16 Jul 81. Poland: Gumience, Szczecin.

631 I Majchrowicz (107). *Aphis fabae* [Homoptera: Aphididae]. 16 Jul 81. Poland: Szczecin.

632 I Majchrowicz (110). *Aphis fabae* [Homoptera: Aphididae]. 25 Jul 81. Poland: Gryfino, Szczecin.

633 I Majchrowicz (109). *Aphis fabae* [Homoptera: Aphididae]. 23 Jul 81. Poland: Stanpanel.

634 I Majchrowicz (111). *Aphis fabae* [Homoptera: Aphididae]. 27 Jul 81. Poland: Szczecin.

635 I Majchrowicz (108). *Aphis fabae* [Homoptera: Aphididae]. 18 Jul 81. Poland: Szczecin.

649 JS Ferguson. *Myzus persicae* [Homoptera: Aphididae] on potato (*Solanum tuberosum*). 7 Aug 81. USA: Arlington Experimental Farm, Columbia County, Wisconsin.

1006 J Aoki (Ent. 15) ← H Tomiyama. [Homoptera: Aphididae]. Nov 76. Japan: Fuchu, Tokyo Prefecture.

1733 [ARSEF 101] N Wilding (1). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

1734 [ARSEF 102, 363; CSIRO EM503] N Wilding (2). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

1735 N Wilding (8). *Aphis fabae* [Homoptera: Aphididae]. Jul 73. England: Woburn Farm, Bedfordshire.

2828 M Feng (MD8903). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2829 M Feng (MD8907). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2830 M Feng (SA8901). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. 25 Jul 89. USA: Parma, Idaho.

2849 M Feng (MD8902). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2850 M Feng (MD8908). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2914 LL Hotz. *Diuraphis tritici* [Homoptera: Aphididae]. Rec'd 17 Nov 89. USA: mixed field collection from Bozeman and Mocassin, Montana.

2955 MS Goettel. *Schizaphis graminum* [Homoptera: Aphididae]. 25 Sep 89. Canada: Writing-on-Stone Prov. Park, Warner County, Alberta.

3129 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 28 Sep 90. USA: Hoffman field #6B, Catherine, New York.

3136 K Hural (Hoff-1). *Acyrthosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

3359 [ARSEF 41] Acc'd 31 Jul 91. ARSEF 41 resting spores stored at 4°C on 14 May 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3359.

3360 [ARSEF 115] Acc'd 31 Jul 91. ARSEF 115 resting spores stored at 4°C on 23 March 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3360.

3361 [ARSEF 15] Acc'd 31 Jul 91. ARSEF 15 resting spores stored at 4°C on 9 July 1975 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3361.

3362 [ARSEF 40] Acc'd 31 Jul 91. ARSEF 40 resting spores stored at 4°C on 31 January 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3362.

3363 [ARSEF 70] Acc'd 31 Jul 91. ARSEF 70 resting spores stored at 4°C from 25 March – 27 April 1976 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3363.

3364 [ARSEF 2] Acc'd 31 Jul 91. ARSEF 2 resting spores stored at 4°C from 16 December – 13 January 1974 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3364.

Cordyceps sp.

3718 RA LeBrun ← J Hanula (C-4). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 91.

Cordyceps heteropoda Kobayasi
[Pyrenomycetes: Clavicipitales]

This species has not produced stromata, perithecia, or ascospores in culture. Vegetative hyphae and conidia are all that have been observed with standard culture media and routine physical conditions of incubation in the laboratory and/or incubator.

1880 K Chandler and RA Humber. *Cicadetta puer* [Homoptera: Cicadidae]. 22 Feb 85. Australia: nr. Cairns, Queensland.

Cordyceps militaris (Link:Fries) Link
[Pyrenomycetes: Clavicipitales]

This species has not produced stromata, perithecia, or ascospores in culture. Vegetative hyphae and conidia are all that have been observed with standard culture media and routine physical conditions of incubation in the laboratory and/or incubator.

2416 M Shimazu (F-522). [Lepidoptera: Geometridae]. 17 Jun 85. Japan: Mt. Akagi.

Crypticola clarulifera Humber, Frances & Sweeney in
Frances, Sweeney & Humber
[Oomycetes: Lagenidiales]

1940 [ARSEF ?2529; ATCC 76239] SP Frances and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae] breeding in the leaf axils of *Taro* sp. 8 Jun 85. Australia: Millaa Millaa, Queensland.

Culicinomyces bisporalis Sigler, Frances & Panter
[Hypomycetes]

1948 [UAMH 5174] SP Frances (MM1) and AW Sweeney. Larva, *Aedes kochi* [Diptera: Culicidae] breeding in leaf axils. 4 Jun 84. Australia: Millaa Millaa, Queensland.

1949 [UAMH 5175] SP Frances (MM2) and AW Sweeney. Larva, *Aedes kochi* [Diptera: Culicidae] breeding in leaf axils. 8 Jun 85. Australia: Millaa Millaa, Queensland.

Culicinomyces clavisporus Couch, Romney & Rao
[Hypomycetes]

372 [UAMH 4848] JN Couch. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 1979. USA: University Lake, Chapel Hill, North Carolina.

582 [UAMH 4849] LS Olive (single spore isolate #1) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.

583 [UAMH 4869] LS Olive (single spore isolate #2) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.

584 [UAMH 4850] LS Olive (single spore isolate #3) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.

585 LS Olive (single spore isolate #4) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.

644 [ARSEF 541 (lost)] AW Sweeney (298A). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. Rec'd 13 Oct 81. Australia: Sydney, New South Wales.

645 AW Sweeney (298B). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. Rec'd 13 Aug 81. Australia: Sydney, New South Wales.

706 [UAMH 4851] AL Knight. Larva, [Diptera: Culicidae]. Rec'd Feb 82. USA: North Carolina.

964 [ATCC 52635; CBS 755.83; IMI 280342] UAMH (4618) ← MS Goettel (FI-59). Larva, *Culiseta inornata* [Diptera: Culicidae]. 12 Aug 82. Canada: pond, N of Devon, Alberta.

1260 UAMH (4854) ← MS Goettel (25B). Larva, *Culiseta inornata* [Diptera: Culicidae] isolate passed through *Aedes aegypti* [Diptera: Culicidae]. Acc'd 3 May 84. Lab. manipulation.

2471 SP Frances (MI2). Larva, *Aedes rupestris* [Diptera: Culicidae]. 8 Dec 81. Australia: Mittagong, New South Wales.

2472 SP Frances (MI4). Larva, *Aedes rupestris* [Diptera: Culicidae]. 5 Jan 82. Australia: Mittagong, New South Wales.

2473 SP Frances (MI5). Larva, *Aedes rupestris* [Diptera: Culicidae]. 12 May 82. Australia: Mittagong, New South Wales.

2474 SP Frances (MI7). Larva, *Aedes rupestris* [Diptera: Culicidae]. 19 May 82. Australia: Mittagong, New South Wales.

2475 SP Frances (MI11). Larva, *Aedes rupestris* [Diptera: Culicidae]. 9 Jun 82. Australia: Mittagong, New South Wales.

2476 SP Frances (MI17). Larva, *Aedes rupestris* [Diptera: Culicidae]. 18 Aug 82. Australia: Mittagong, New South Wales.

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Culicinomyces clavisporus *Entomophaga aulicae*

2477 SP Frances (MI19). Larva, *Aedes rupestris* [Diptera: Culicidae]. 6 Apr 83. Australia: Mittagong, New South Wales.

2478 SP Frances (MI21). Larva, *Dasyhelea* sp. [Diptera: Ceratopogonidae]. 27 Apr 83. Australia: Mittagong, New South Wales.

2479 SP Frances (VI1). Larva, *Culisetia inconspicua* [Diptera: Culicidae]. 6 Dec 84. Australia: Mallacoota, Victoria.

2480 SP Frances (QI1) ← DW Roberts and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Aug 85. Australia: Millaa Millaa, Queensland.

2481 SP Frances (QI2). Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 30 Oct 85. Australia: Millaa Millaa, Queensland.

2482 UAMH (4854) ← MS Goettel (25B). *Culiseta ornata* [Diptera: Culicidae] isolate passed through *Aedes aegypti* [Diptera: Culicidae]. Acc'd 19 Nov 87. Lab. manipulation.

2526 SP Frances (MI14). Rec'd 26 Oct 87.

2527 SP Frances (MI16). Rec'd 26 Oct 87.

2622 MS Goettel ← SP Frances (MI26) and AW Sweeney. [Diptera: Culicidae]. Acc'd 20 Oct 88. Australia.

Drechmeria coniospora (Drechsler) Gams & Jansson [Hyphomycetes]

2468 [CBS 615.82] BM Zuckerman ← HB Jansson. Phylum Nemata, Class Secernemtia. Rec'd 12 Nov 87. Sweden.

3346 P Timper ← BA Jaffee (M-19) ← R Mankau. Phylum Nemata, Class Secernemtia. Rec'd 19 Jun 91. USA: California.

3354 P Timper (C1). Phylum Nemata, Class Secernemtia. Mar 91. USA: Minns Garden, Cornell University, Ithaca, New York.

Engyodontium aranearum (Cavara) Gams, Hoog, Samson & Evans [Hyphomycetes]

2929 [MU 248] MA Vincent (2609). *Pholcus phalangoides* [Araneida: Pholcidae]. 6 Sep 87. USA: moist basement, 6888 Burch Rd., Richland Twp. sect. 22, Darke County, Ohio.

2935 [MU 302] MA Vincent (3201). *Pholcus phalangoides* [Araneida: Pholcidae]. Jul 89. USA: moist basement, 6888 Burch Rd., Richland Twp. sect. 22, Darke County, Ohio.

Entomophaga sp. [Zygomycetes: Entomophthorales]

1126 DW Roberts (020184-2A). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 2 Jan 84. Philippines: IRRI, Los Baños, Manila.

1230 [CNPAF 84-04-09-1B; CP 130] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 9 Apr 84. Brazil: CNPAF, Goiânia, Goiás.

1881 DW Roberts (110485-2) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae] on cacao. 11 Apr 85. Solomon Islands: nr. Honiara, Guadalcanal.

2083 DG Holdom. *Aiolopus thalassinus tamulus* [Orthoptera: Acrididae: Oedipodinae]. 30 Dec 85. Indonesia: CIBA-GEIGY R & D Station, Cikamppek, Jawa Barat, Java. Provided as vegetative protoplasts in a liquid tissue culture medium.

2535 J Eilenberg (KVL 5). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 25 Aug 86. Denmark: Kattinge Vig, Roskilde.

2671 J Eilenberg (KVL 48). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 9 Aug 88. Denmark: Kattinge Vig, Roskilde.

***Entomophaga asiatica* Humber, Soper & Shimazu in Humber (sp. nov., unpublished)**
[Zygomycetes: Entomophthorales]
Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

1393 RS Soper (84627-6). [Orthoptera: Acrididae]. 27 Jun 84. Japan: nr. Tsuruga, Fukui Prefecture.

1659 M Shimazu (F-457) and RS Soper. *Parapodisma* sp. [Orthoptera: Acrididae]. Jun 84. Japan: Fukui Prefecture.

***Entomophaga aulicae* (Reichardt in Bail) Humber**
[Zygomycetes: Entomophthorales]
Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.

51 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: 12.4 mi from Rt. 11/159 in Patten, Shin Pond, Maine.

164 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 77. USA: forest-lower, nr. Carroll, Maine.

165 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 77. USA: Sherman, Maine.

166 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 77. USA: forest-lower, nr. Carroll, Maine.

167 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 77. USA: forest-upper, nr. Carroll, Maine.

168 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 77. USA: forest-upper, nr. Carroll, Maine.

172 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 77. USA: forest-lower, Shin Pond, Maine.

198 [ARSEF ?998; FPMI 707] RG Kenneth (3136) ← J Aoki. *Aedia leucomelas* [Lepidoptera: Noctuidae] on *Ipomea batatas* (sweet potato). 29 Oct 76. Japan: Fuchu, Tokyo Prefecture.

251 JG Hamm. ?*Heliothis* sp. [Lepidoptera: Noctuidae] on sorghum. Rec'd Sep 78. USA: GA Coastal Plain Experiment Station, Tifton, Georgia.

,393 [FPMI 770] S Keller (114). *Tipula* sp. [Diptera: Tipulidae]. Rec'd 27 May 80. Switzerland.

998 [ARSEF ?198] J Aoki (Ent. 14) ← A Ohkawa. *Aedia leucomelas* [Lepidoptera: Noctuidae]. Oct 76. Japan: Fuchu, Tokyo Prefecture.

1140 [ARSEF 1656] M Shimazu (F-339). [Lepidoptera]. 8 Apr 82. Japan: Ibaraki Prefecture.

1655 [ARSEF 1142 (lost); CSIRO EM693] M Shimazu (F-343). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Rec'd Oct 84. Japan: Ibaraki Prefecture.

1656 [ARSEF 1140] M Shimazu (F-339). [Lepidoptera]. Rec'd Oct 84. Japan: Ibaraki Prefecture.

1657 [CSIRO EM690] M Shimazu (F-327). *Mamestra brassicae* [Lepidoptera: Noctuidae]. Acc'd 19 Oct 84. Japan: Ibaraki Prefecture.

1751 J Mitsuhashi (Emb-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 29 Oct 84. Japan: Ibaraki Prefecture.

1990 FPMI (491). *Lambdina fiscellaria lugubrosa* [Lepidoptera: Geometridae]. 16 Aug 72. Canada: Coquitlam, British Columbia.

1991 FPMI (458). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 8 Sep 70. Canada: Boots Brook, Newfoundland.

1992 FPMI (889). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 5 Jul 85. Canada: Black Sturgeon, Ontario.

1993 FPMI (771). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 25 Jun 84. Canada: Black Sturgeon, Ontario.

1994 FPMI (776). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 84. Canada: Black Sturgeon, Ontario.

1995 FPMI (777). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 84. Canada: Black Sturgeon, Ontario.

1997 FPMI (894). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 29 Jul 85. Canada: Black Sturgeon, Ontario.

1998 FPMI (877). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 11 Sep 79. Canada: Thessalon, Ontario.

1999 FPMI (576). *Pseudaletia* sp. [Lepidoptera: Noctuidae]. 18 Jul 76. Canada: Sault Ste. Marie, Ontario.

2000 FPMI (513). *Enypia griseata* [Lepidoptera: Geometridae]. 1975. Canada: British Columbia.

2362 M Shimazu (F-554-4). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2363 M Shimazu (F-553-3). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2365 M Shimazu (F-553-1). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2366 M Shimazu (F-555). *Colias erate poliographus* [Lepidoptera: Pieridae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2367 M Shimazu (F-554-3). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2368 M Shimazu (F-554-2). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2369 M Shimazu (F-554-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.

2372 M Shimazu (F-531). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 14 May 86. Japan: Chiyoda-mura, Ibaraki Prefecture.

2373 M Shimazu (F-530-2). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 86. Japan: Sakura-mura, Chiba Prefecture.

2374 M Shimazu (F-530-1). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 86. Japan: Sakura-mura, Chiba Prefecture.

2843 JC Silver ← A Sands. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. Aug 89. USA: Wilmington, Vermont.

2896 FPMI (521). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 13 Jul 73. Canada: Newfoundland.

2897 FPMI (626). *Dryocampa rubicunda* [Lepidoptera: Saturniidae]. 1973. Canada: Ontario.

2898 FPMI (646). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 27 Jul 78. Canada: Newfoundland.

2899 FPMI (717). *Rheumaptera hastata* [Lepidoptera: Geometridae]. 16 Aug 82. Canada: Gargantua, Ontario.

2900 FPMI (893). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 29 Jul 83. Canada: Gander, Newfoundland.

2901 FPMI (934). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 2 Jul 86. Canada: Black Sturgeon, Ontario.

2902 FPMI (597). *Heterocampa* sp. [Lepidoptera: Notodontidae]. 2 Aug 76. Canada: St. Joseph's Island, Ontario.

2903 FPMI (598). *Ellida caniplaga* [Lepidoptera: Notodontidae]. 10 Aug 76. Canada: St. Joseph's Island, Ontario.

2904 FPMI (600). *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 22 Jul 76. Canada: Hilton Beach, Ontario.

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2905 FPMI (602). *Heterocampa biundata* [Lepidoptera: Notodontidae]. 14 Aug 76. Canada: St. Joseph's Island, Ontario.

3016 MH Griggs. Larva, [Lepidoptera: Noctuidae]. 9 Jul 90. USA: Game Farm Rd., Ithaca, New York.

3039 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 90. USA: Stamford, New York.

3212 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 90. USA: Stamford, New York. Resting spores from ARSEF 3039.

3602 AE Hajek. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 10 Jun 91. USA: McGowan Woods, Ithaca, New York. Resting spores.

Entomophaga australiensis Humber (sp. nov., unpublished)
[Zygomycetes: Entomophthorales]

328 [FPMI 767] RS Soper (P-38). *Cicadella* sp. [Homoptera: Cicadellidae] on rice. Feb 79. Australia: Arriga, Queensland.

331 [ARSEF 332 (lost)] RS Soper ← K Chandler. *Cicadetta puer* [Homoptera: Cicadidae] on sugar cane. 14 Feb 79. Australia: Cairns, Queensland.

365 RS Soper. *Cicadetta puer* [Homoptera: Cicadidae]. 13 Feb 79. Australia: Cairns, Queensland.

581 RS Soper (81223-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Feb 81. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.

743 [CNPAF 82-3-10-04; CP 33] RS Soper. [Homoptera: Cicadellidae]. 10 Mar 82. Brazil: CNPAF, Goiânia, Goiás.

791 [CNPAF 82-5-7-3D-1; CP 44] RA Daoust and DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 7 May 82. Brazil: 4 km from Goianinha, Rio Grande do Norte.

1888 RS Soper. Reisolate of ARSEF 743. 10 May 82. Brazil: CNPAF, Goiânia, Goiás.

1920 P Taylor. Reisolate of ARSEF 331 passed through *Sogatodes oryzicola* [Homoptera: Delphacidae]. Jul 85. Lab. manipulation.

Entomophaga calopteni (Bessey) Humber
[Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

383 RA Humber ← DM MacLeod. *Melanoplus flavidus* [Orthoptera: Acrididae]. 3 Aug 79. USA: Sheridan, Wyoming.

390 RA Humber ← RS Soper. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 3 Aug 79. USA: Sheridan, Wyoming.

408 RA Humber. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 2 Aug 79. USA: Broadus, Montana.

497 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 27 Jun 79. USA: Salt Water Canyon, Eagar, Arizona.

498 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 5 Jul 80. USA: White River, South Dakota.

500 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae] resting spore isolate passed through *Locusta migratoria* [Orthoptera: Acrididae]. Summer 80. Lab. manipulation.

623 BJ Martinell (004B(M. cun haem)). *Melanoplus cuneatus* [Orthoptera: Acrididae]. 18 Jun 81. USA: Southwater Canyon, Arizona.

625 BJ Martinell (014B). *Melanoplus packardii* [Orthoptera: Acrididae]. 1 Jul 81. USA: alfalfa field, Eagar, Arizona.

626 BJ Martinell (004A(M. cun femur)). *Melanoplus cuneatus* [Orthoptera: Acrididae]. 18 Jun 81. USA: Southwater Canyon, Arizona.

646 BJ Martinell. *Melanoplus cuneatus* [Orthoptera: Acrididae]. 1 Jul 81. USA: Eagar, Arizona.

766 BJ Martinell (36) and RS Soper. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 27 Jul 82. USA: Eagar, Arizona.

2522 DG Holdom ← WA Ramoska. *Melanoplus differentialis* [Orthoptera: Acrididae]. Acc'd 8 Dec 87. USA: Kansas.

Entomophaga conglomerata (Sorokin) Keller
[Zygomycetes: Entomophthorales]

2273 EL Cuevas-Inclé (II). Adult, [Diptera: Chironomidae]. 25 Sep 86. USA: Michigan Hollow, Danby, New York.

Entomophaga macleodii Humber (sp. nov., unpublished)
[Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

375 [FPMI 647] DM MacLeod. *Dissosteira carolina* [Orthoptera: Acrididae]. 20 Apr 89. Canada: nr. river bank, Iron Bridge, Ontario.

376 [FPMI 625] DM MacLeod. *Dissosteira carolina* [Orthoptera: Acrididae]. 21 Jul 77. Canada: nr. river bank, Iron Bridge, Ontario.

382 RS Soper. *Dissosteira carolina* [Orthoptera: Acrididae]. Aug 79. USA: 12 Redwood Lane, Ithaca, New York.

496 RA Humber and BJ Martinell. *Camnula pellucida* [Orthoptera: Acrididae]. 28 Jun 80. USA: Rodeo fairground, Alpine, Arizona.

499 RA Humber, BJ Martinell and RS Soper. *Dissosteira carolina* [Orthoptera: Acrididae]. 17 Jul 80. USA: Ithaca, New York.

618 BJ Martinell (003(Rodeo)). *Cannula pellucida* [Orthoptera: Acrididae]. 16 Jun 81. USA: Rodeo fairground, Alpine, Arizona.

619 BJ Martinell (001(FSA)). *Cannula pellucida* [Orthoptera: Acrididae]. 16 Jun 81. USA: Forest Service plot A, Alpine, Arizona.

620 BJ Martinell (006(Judd B proto)). *Cannula pellucida* [Orthoptera: Acrididae]. 27 Jun 81. USA: Judd Dam plot B, nr. Alpine, Arizona.

621 BJ Martinell (010(AlpineA)). *Cannula pellucida* [Orthoptera: Acrididae]. 29 Jun 81. USA: Alpine plot A, Alpine, Arizona.

624 BJ Martinell (011(JuddA)). *Cannula pellucida* [Orthoptera: Acrididae]. 29 Jun 81. USA: Judd Dam plot A, nr. Alpine, Arizona.

628 BJ Martinell (008). *Cannula pellucida* [Orthoptera: Acrididae]. 27 Jun 81. USA: Alpine plot B, Alpine, Arizona.

629 BJ Martinell (002). *Cannula pellucida* [Orthoptera: Acrididae]. 23 Jun 81. USA: Forest Service plot B, Alpine, Arizona.

765 BJ Martinell (41). *Cannula pellucida* [Orthoptera: Acrididae]. 28 Jul 82. USA: Judd Dam, nr. Alpine, Arizona.

767 BJ Martinell (1). *Cannula pellucida* [Orthoptera: Acrididae]. 18 Jul 82. USA: Jepson's Ranch, Alpine, Arizona.

768 BJ Martinell (3). *Cannula pellucida* [Orthoptera: Acrididae]. 18 Jul 82. USA: Rodeo fairground, Alpine, Arizona.

769 BJ Martinell (13). *Cannula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC Flat, nr. Alpine, Arizona.

770 BJ Martinell (20). *Cannula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 23 Jul 82. Lab. manipulation.

771 BJ Martinell (21). *Cannula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 23 Jul 82. Lab. manipulation.

772 BJ Martinell (12). *Cannula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus packardii* [Orthoptera: Acrididae]. 18 Jul 82. Lab. manipulation.

773 BJ Martinell (10). *Cannula pellucida* [Orthoptera: Acrididae]. 18 Jul 82. USA: Rodeo fairground, Alpine, Arizona.

774 BJ Martinell (25). *Cannula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC Flat, nr. Alpine, Arizona.

775 BJ Martinell (11) and RS Soper. *Cannula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus packardii* [Orthoptera: Acrididae]. 18 Jul 82. Lab. manipulation.

776 BJ Martinell (8) and RS Soper. *Cannula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 18 Jul 82. Lab. manipulation.

777 BJ Martinell (28). *Cannula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: Judd Dam, nr. Alpine, Arizona.

778 BJ Martinell (23). *Cannula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC Flat, nr. Alpine, Arizona.

779 BJ Martinell (22). *Cannula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC flats, nr. Alpine, Arizona.

3025 ME Ramos. *Cannula pellucida* [Orthoptera: Acrididae]. 16 Jul 90. USA: Watford City, North Dakota.

3077 L Postie (Reisolate 1). Reisolate of ARSEF 768 passed through *Cannula pellucida* [Orthoptera: Acrididae]. Apr 90. Lab. manipulation.

3078 L Postie (Reisolate 2). Reisolate of ARSEF 768 passed through *Cannula pellucida* [Orthoptera: Acrididae]. Apr 90. Lab. manipulation.

3079 L Postie (Reisolate 3). Reisolate of ARSEF 3078 passed through *Cannula pellucida* [Orthoptera: Acrididae]. 6 Aug 90. Lab. manipulation.

Entomophaga maimaiga Humber, Shimazu & Soper in Soper, Shimazu, Humber, Ramos & Hajek [Zygomycetes: Entomophthorales]
 Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.

1390 RS Soper (84626-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.

1391 [FPMI 963] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.

1392 [FPMI 964] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.

1400 [FPMI 952] RS Soper (84626-7). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.

1658 M Shimazu (F-446). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Ishikawa Prefecture.

1746 M Shimazu. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 28 Nov 84. Lab. manipulation.

2370 M Shimazu (F-541-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 86. Japan: Sakura-mura, Chiba Prefecture.

2371 M Shimazu (F-541-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 86. Japan: Sakura-mura, Chiba Prefecture.

2661 AE Hajek. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 23 Oct 88. Lab. manipulation.

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Entomophaga maimaiga *Entomophthora* sp.

2775 AE Hajek (CTIV-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 89. USA: Wilton, Connecticut.
2779 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 25 Jun 89. USA: Northampton, Massachusetts.
2780 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jul 89. USA: North Conway, New Hampshire.
3052 AE Hajek (L1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 90. USA: Ward Pound Ridge Reservation, Westchester County, New York.
3053 AE Hajek (L3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 90. USA: Ward Pound Ridge Reservation, Westchester County, New York.
3110 AE Hajek. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Feb 89. Lab. manipulation.

Entomophaga praxibuli Humber, Milner, & Soper (sp. nov., unpublished) [Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

840 RS Soper. *Praxibulus* sp. [Orthoptera: Acrididae]. 1983. Australia: Wanwinda, New South Wales.
2721 ME Ramos. Reisolate of ARSEF 840 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Spring 89. Lab. manipulation.
2963 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
2964 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
2965 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
2966 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
2967 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.
2968 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.

2969 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.
2970 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.
3058 ME Ramos. Reisolate of ARSEF 2964 passed through *Camnula pellucida* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
3059 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
3060 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthopera: Acrididae]. 10 Aug 90. Lab. manipulation.
3061 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthopera: Acrididae]. 10 Aug 90. Lab. manipulation.
3067 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
3068 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthopera: Acrididae]. 10 Aug 90. Lab. manipulation.
3069 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
3356 ME Ramos (Cape). Reisolate of ARSEF 3059 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Rec'd 10 Jul 91. Lab. manipulation.
3357 ME Ramos (Mesa). Reisolate of ARSEF 3059 passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. Rec'd 10 Jul 91. Lab. manipulation.
3358 ME Ramos (Mebi). Reisolate of ARSEF 3059 passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. Rec'd 10 Jul 91. Lab. manipulation.

Entomophaga tabanivora (Anderson & Magnarelli) Humber [Zygomycetes: Entomophthorales]

627 [FPMI 769] BA Mullens. Female adult, *Atylotus thoracis* [Diptera: Tabanidae]. 16 Jul 81. USA: Landers Corners Bog, Cortland County, New York.

Entomophthora sp. [Zygomycetes: Entomophthorales]

999 J Aoki (Ent. 45) ← T Kobayashi. [Homoptera: Aphididae]. Jun 81. Japan: Fuchu, Tokyo Prefecture.

Entomophthora chromaphidis Cornu
[Zygomycetes: Entomophthorales]

This taxon has been segregated from *Entomophthora planchoniana* Cornu (see Humber & Feng, 1991, Mycotaxon 51:497-504). Strains should be incubated at temperatures $\leq 20^{\circ}\text{C}$.

1860 DG Holdom (UQE-2-2). *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Jun 81. Australia: Lockyer Valley, Queensland.

1862 DG Holdom (UQE-15). *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Jan 83. Australia: Lockyer Valley, Queensland.

1863 DG Holdom (UQE-21). *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Jan 83. Australia: Lockyer Valley, Queensland.

Entomophthora culicis (Braun) Fresenius
[Zygomycetes: Entomophthorales]

387 S Keller (55). [Diptera: Nematocera]. Rec'd 3 Oct 79. Switzerland: Zürich.

Entomophthora muscae (Cohn) Fresenius
[Zygomycetes: Entomophthorales]

This taxon is a partially resolved species complex (see Keller, 1984, Mitt. Schweiz. Entomol. Ges. 57: 131-132). Most strains are provided only as vegetative protoplasts in liquid tissue culture medium.

392 [ARSEF 466 (lost)] S Keller (39). [Diptera]. Rec'd 18 Oct 79. Switzerland.

454 RA Humber ← JP Kramer. *Musca domestica* [Diptera: Muscidae]. Mar 80. USA: laboratory colony, Ithaca, New York.

556 RA Humber. *Musca domestica* [Diptera: Muscidae]. 11 Mar 81. USA: JP Kramer's laboratory colony, Cornell University, Ithaca, New York.

557 BJ Martinell. *Musca domestica* [Diptera: Muscidae]. 10 Mar 81. USA: Boyce Thompson Institute, Ithaca, New York.

651 BJ Martinell ← DE McCabe. *Pollenia rudis* [Diptera: Calliphoridae]. 5 Nov 81. USA: Keuka Park, New York.

707 RA Humber. *Delia platura* [Diptera: Anthomyiidae]. 20 Feb 82. England: N Wilding's greenhouse colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

803 JD Vandenberg. *Musca domestica* [Diptera: Muscidae]. USA: 119 Middaugh Rd., Brooktondale, New York.

826 DC Steinkraus. [Diptera: Syrphidae]. 1982. USA: Ithaca, New York.

2014 RA Humber. *Musca domestica* [Diptera: Muscidae]. 10 Mar 81. USA: JP Kramer's laboratory colony, Cornell University, Ithaca, New York.

2087 TJ Poprawski (0195). Adult, [Diptera: Anthomyiidae] in rapeseed field. Acc'd 19 Feb 86. France: Béhoust, Yvelines.

2088 TJ Poprawski (0196). Adult, [Diptera: Anthomyiidae] in rapeseed field. Acc'd 19 Feb 86. France: Béhoust, Yvelines.

2089 TJ Poprawski (0197). Adult, *Delia* sp. [Diptera: Anthomyiidae] in sunflower field. Acc'd 19 Feb 86. France: Béhoust, Yvelines.

2172 BA Mullens. *Musca domestica* [Diptera: Muscidae]. Acc'd 30 May 86. USA: Riverside, California.

2263 TJ Poprawski (8617). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 16 Jun 86. France: Béhoust, Yvelines.

2264 TJ Poprawski (8619). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 16 Jun 86. France: Béhoust, Yvelines.

2265 TJ Poprawski (8622). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 19 Jun 86. France: Béhoust, Yvelines.

2266 TJ Poprawski (8624). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 19 Jun 86. France: Béhoust, Yvelines.

2317 TJ Poprawski (8640). Adult, *Delia* sp. [Diptera: Anthomyiidae] on sugar beet. 14 Oct 86. France: Béhoust, Yvelines.

2540 J Eilenberg (KVL 1). *Psila rosae* [Diptera: Psilidae]. Aug 84. Denmark: Strandholm, Faarevejle.

2541 J Eilenberg (KVL 2). *Psila rosae* [Diptera: Psilidae]. Sep 85. Denmark: Strandholm, Faarevejle.

2542 J Eilenberg (KVL 3) ← U Olesen. *Musca domestica* [Diptera: Muscidae]. Sep 86. Denmark: Filskov, Ribe.

2543 J Eilenberg (KVL 8) ← U Olesen. *Musca domestica* [Diptera: Muscidae]. Sep 86. Denmark: Storkedal.

2665 J Eilenberg (KVL 46). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 88. Denmark: Roskilde.

2668 J Eilenberg (KVL 16). *Delia radicum* [Diptera: Anthomyiidae]. 25 Jul 86. Denmark: Svanholm, Hornsherred.

2670 J Eilenberg (KVL 45). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 88. Denmark: Roskilde.

2673 J Eilenberg (KVL 50). [Diptera: Syrphidae]. 2 Aug 88. Denmark: Roskilde.

2674 J Eilenberg (KVL 51). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 88. Denmark: Roskilde.

2675 J Eilenberg (KVL 44). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 88. Denmark: Roskilde.

2678 J Eilenberg (KVL 17). [Diptera: Anthomyiidae]. 31 Jul 86. Denmark: Holmegaards Mose.

3074 RI Carruthers and SB Krasnoff. Adult, *Delia antiqua* [Diptera: Anthomyiidae]. 9 Oct 90. USA: Prattburg, New York.

Entomophthora schizophorae Keller & Wilding in Keller
[Zygomycetes: Entomophthorales]

2667 J Eilenberg (KVL 13). *Psila rosae* [Diptera: Psilidae]. 23 Jun 86. Denmark: Strandholm, Faarevejle.

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Erynia sp.
Erynia conica

Erynia sp.

[Zygomycetes: Entomophthorales]

Strains included here were not sufficiently identifiable to the species and have not been reidentified since publication of the entomophthoralean taxonomy used here (see Humber, 1989, Mycotaxon 34:441-460). In this classification these strains would be reassigned to *Pandora* Humber, *Furia* (Batko) Humber, *Erynia* (Nowakowski ex Batko) Remaudière & Hennebert, or *Zoophthora* Batko.

876 [CNPAF 83-04-15-2B; CP 106] DW Roberts. [Diptera]. Apr 83. Brazil: Barbalha, Ceará.

880 [CNPAF 83-04-15-2A; CP 110] BP Magalhães and DW Roberts. Adult, [Diptera]. Apr 83. Brazil: Barbalha, Ceará.

884 [CNPAF 83-04-15-2C; CP 114] BP Magalhães and DW Roberts. Adult, [Diptera]. Apr 83. Brazil: Barbalha, Ceará.

983 J Aoki (Ent. 18) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 76. Japan: Fuchu, Tokyo Prefecture.

1052 J Aoki (Ent. 42) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.

1143 [CSIRO EM694] M Shimazu (F-344). *Eana argentina* [Lepidoptera: Tortricidae]. Acc'd 4 Apr 84. Japan: Hokkaido Prefecture.

1241 [CNPAF 84-04-13-1C; CP 141] DW Roberts. Larva, [Lepidoptera]. 13 Apr 84. Brazil: CNPAF, Goiânia, Goiás.

1266 J Aoki (Ent. 34) ← M Shimazu. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.

1267 J Aoki (Ent. 37) ← M Shimazu. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.

1338 S Balazy (1559). [Diptera: Brachycera] attached to the leaves of arboraceous plants. 22 May 83. Poland: Białowieża National Park.

1666 JV Maddox, MR McGuire and MJ Morris. *Therioaphis maculata* [Homoptera: Aphididae] in clover field. May 84. USA: Illinois.

2027 JA Harper. 4th instar larva, *Pseudoplusia includens* [Lepidoptera: Noctuidae]. Acc'd 28 Oct 85. USA: Auburn, Alabama.

2097 DG Holdom (130286). ?*Hydrellia* sp. [Diptera: Ephydriidae]. 13 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2279 IL Sivcev (20/86). [Homoptera: Aphididae] on *Cichorium intybus*. 10 Jun 86. Yugoslavia: Zemun, Belgrade.

2292 IL Sivcev (42/86). *Macrosiphum euphorbiae* [Homoptera: Aphididae] on cabbage. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.

2294 IL Sivcev (55/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.

2495 J Eilenberg (KVL 14) ← T Møhl. [Diptera]. 30 Jun 86. Denmark: Strandholm, Faarevejle.

2507 J Eilenberg (KVL 39) and N Wilding. [Diptera: Chironomidae]. 31 Aug 87. England: Rothamsted Experimental Station, Harpenden, Hertfordshire.

2525 J Eilenberg (KVL 34). *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 87. Denmark: Holmegaards Mose.

2536 J Eilenberg (KVL 18). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.

2537 J Eilenberg (KVL 23). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.

2538 J Eilenberg (KVL 20). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.

2539 J Eilenberg (KVL 22). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.

2553 [ARSEF 2662 (deaccessioned)] J Eilenberg (KVL 19) and J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.

2663 J Eilenberg (KVL 33) ← J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 87. Denmark: Holmegaards Mose.

2664 J Eilenberg (KVL 40). [Coleoptera: Cantharidae]. Jun 87. Denmark: Brogaard, Lammfjorden.

Erynia aquatica (Anderson & Ringo in Anderson & Anagnostakis) Humber [Zygomycetes: Entomophthorales]

Vegetative growth of this species is very sparse and slow. Strains should be in liquid tissue culture media incubated at 0-4°C.

750 RA Humber and RG Lawlor. Adult, *Aedes* sp. [Diptera: Culicidae]. USA: Cambridge, New York.

764 RA Humber and RG Lawlor. Pupa, [Diptera: Culicidae]. Jun 82. USA: Memorial Rock, Sapsucker Woods, Ithaca, New York.

Erynia conica (Nowakowski) Remaudière & Hennebert [Zygomycetes: Entomophthorales]

1439 N Hywel-Jones (H84178-2). *Simulium* sp. [Diptera: Simuliidae]. Jun 84. England: Fingle Bridge (River Teign), Dartmoor National Park, Devon.

1752 S Keller (527). [Diptera: Simuliidae]. 24 Oct 84. Switzerland.

1753 S Keller (528). [Diptera: Simuliidae]. 24 Oct 84. Switzerland.

2274 EL Cuevas-Incle (III). Adult, [Diptera: Chironomidae]. 2 Oct 85. USA: Six Mile Creek, Brooktondale, New York.

2275 EL Cuevas-Incle (IV). Gravid female, [Diptera: Simuliidae]. 2 Oct 85. USA: Six Mile Creek, Brooktondale, New York.

Erynia conica
Furia neopyralidarum

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2277 EL Cuebas-Incle (VI). Adult, [Diptera: Chironomidae]. 20 Jun 85. USA: Six Mile Creek, Ithaca, New York.

2405 RI Samuels. Adult, [Diptera: Chironomidae]. Sep 86. England: Newton Park, Avon.

Erynia curvispora (Nowakowski) Remaudière & Hennebert
[Zygomycetes: Entomophthorales]

802 EL Cuebas-Incle. Adult, *Simulium* sp. [Diptera: Simuliidae]. 24 Jul 82. USA: outlet, Dryden Lake, Dryden, New York.

1754 S Keller (529). [Diptera: Simuliidae]. 24 Oct 84. Switzerland.

Erynia ovispora (Nowakowski) Remaudière & Hennebert
[Zygomycetes: Entomophthorales]

399 S Keller (100). [Diptera: Psychodidae]. 12 Jun 78. Switzerland.

400 S Keller (102). [Diptera: Psychodidae]. 12 Jun 78. Switzerland.

Erynia rhizospora (Thaxter) Remaudière & Hennebert
[Zygomycetes: Entomophthorales]

219 LS Bauer. Adult, [Trichoptera]. Jun 78. USA: Dover-Foxcroft, Maine.

801 EL Cuebas-Incle. Adult, [Trichoptera]. 24 Jul 82. USA: outlet, Dryden Lake, Dryden, New York.

1440 RA Humber. Adult, [Trichoptera]. 2 Jul 84. England: Castle Drago (River Teign), Dartmoor National Park, Devon.

1441 RA Humber. Adult, [Trichoptera]. 2 Jul 84. England: Castle Drago (River Teign), Dartmoor National Park, Devon.

1442 E Descals (C-1756-4) and RA Humber. Adult, [Trichoptera]. 27 Jun 84. Wales: polluted stream, Llanfair Caereinion, Powys.

1443 RA Humber. Adult, [Trichoptera]. 21 Jun 84. England: Steps Bridge, Dartmoor National Park, Devon.

2276 EL Cuebas-Incle (V). Adult, [Trichoptera]. 26 Jul 85. USA: Michigan Hollow, Danby, New York.

2407 RI Samuels ← TB Clark and TC Reeves. Adult, [Trichoptera: Hydropsychidae]. Aug 86. England: Fingle Bridge (River Teign), Dartmoor National Park, Devon.

Erynia sciarae (Olive) Ben-Ze'ev & Kenneth
[Zygomycetes: Entomophthorales]

1870 N Wilding (80) ← G Remaudière. Adult, [Diptera: Mycetophilidae] on soil. 30 Sep 76.

Eryniopsis caroliniana (Thaxter) Humber
[Zygomycetes: Entomophthorales]

640 [ARSEF 213 (deaccessioned)] S Keller (69). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 81. Switzerland.

641 [ARSEF 424 (lost)] S Keller (41). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 81. Switzerland.

642 [ARSEF 212 (deaccessioned)] S Keller (65). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 81. Switzerland.

Filobasidiella arachnophila Malloch
[Basidiomycetes: Filobasidiales]

2058 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Furia americana (Thaxter) Humber
[Zygomycetes: Entomophthorales]

742 [CNPAF 82-3-10-01; CP 32] RS Soper. [Diptera]. 10 Mar 82. Brazil: CNPAF, Goiânia, Goiás.

1240 [CNPAF 84-03-30-4B; CP 140] DW Roberts. [Diptera]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.

1242 [CNPAF 84-03-30-1A; CP 142] RA Daoust, BP Magalhães and DW Roberts. [Diptera]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.

2192 [CNPAF 86-4-24; CP 202] SM dos Santos. [Diptera]. 24 Apr 86. Brazil: CNPAF, Goiânia, Goiás.

2194 [CNPAF 86-5-21-A; CP 204] SM dos Santos. [Diptera]. 21 May 86. Brazil: CNPAF, Goiânia, Goiás.

Furia crustosa (Macleod & Tyrrell) Humber
[Zygomycetes: Entomophthorales]

2906 FPMI. [Lepidoptera]. Acc'd 3 Apr 90. Canada.

Furia ithacensis (Kramer) Humber
[Zygomycetes: Entomophthorales]

663 JP Kramer. *Symphoromyia hirta* [Diptera: Rhagionidae]. 1 Jul 80. USA: Michigan Hollow, West Danby, New York. CULTURE EX TYPE.

1339 S Balazy (1561). [Diptera: Empididae] attached to the leaves of arboraceous plants. 22 May 83. Poland: Białowieża National Park.

1340 S Balazy (1561a). [Diptera: Empididae] attached to the leaves of arboraceous plants. 22 May 83. Poland: Białowieża National Park.

Furia neopyralidarum (Ben-Ze'ev) Humber
[Zygomycetes: Entomophthorales]

1145 M Shimazu (F-356). [Lepidoptera]. Acc'd 4 Apr 84. Japan: Ibaraki Prefecture.

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Furia pieris (Li & Humber) Humber [Zygomycetes: Entomophthorales]

781 BF Usher. *Pieris rapae* [Lepidoptera: Pieridae]. 27 Aug 82. USA: Ellis Hollow Rd, Community Gardens, Ithaca, New York.

Furia virescens (Thaxter) Humber [Zygomycetes: Entomophthorales]

394 S Keller (24). *Notosteira elongata* [Hemiptera: Miridae]. 9 Oct 75. Switzerland.
 427 S Keller (250). Larva, [Lepidoptera]. Rec'd 6 Feb 80. Switzerland.
 470 S Keller (251). [Lepidoptera: Noctuidae]. Rec'd 27 May 80. Switzerland.
 1129 S Keller (416). [Lepidoptera: Noctuidae]. 18 Aug 82. Switzerland.

Fusarium sp. [Hyphomycetes]

687 DW Roberts (101181-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Oct 81. PR China: Shanghai, Kiangsu.
 1307 TJ Poprawski (043). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Acquapendente, Lazio.
 1310 TJ Poprawski (A9). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
 1522 TJ Poprawski (0121). Pupa, *Musca domestica* [Diptera: Muscidae]. 5 Jul 84. France: La Clastre.
 1641 TJ Poprawski (0138). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
 1828 RA Humber (Fus.Wal) and MC Rombach. [Homoptera: Coccidae] on stems of young *Citrus* sp. 13 Nov 84. Sri Lanka: Walpita Farm, between Diwulapitiya & Kotadeniyawa.
 2232 K Narayanan (6). *Coccus viridis* [Homoptera: Pseudococcidae]. Rec'd 27 Aug 86. India.
 2252 TJ Poprawski (8627). Adult, [Diptera: Bibionidae] on *Solidago* sp. 16 Jun 86. France: Béhoust, Yvelines.
 2302 JE Moxon (1). *Heteropsylla cubana* [Homoptera: Psyllidae]. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.
 2303 JE Moxon (2). *Heteropsylla cubana* [Homoptera: Psyllidae]. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.
 2333 M Feng (SA8602). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. Summer 86. USA: Apple valley Rd. & Klahr Rd., Parma, Idaho.
 2337 M Feng (RP8601). *Rhopalosiphum padi* [Homoptera: Aphididae] on field corn. 2 Sep 86. USA: Apple Valley Rd. & Klahr Rd., Parma, Idaho.
 2418 [SBI 87-2] H David. *Emmalocera depressella* [Lepidoptera: Phycitinae]. Acc'd 19 May 87. India.
 2568 F Agudelo-Silva ← RL Bugg. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Nov 87. USA: Tifton, Georgia.
 2569 F Agudelo-Silva ← RL Bugg. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Nov 87. USA: Tifton, Georgia.
 2595 RC Rajak (ENT/10A). *Hyblaea puer* [Lepidoptera: Hyblaeidae] on teak, *Tectona grandis*. Acc'd 12 Sep 88. India.
 2736 GW Riethmacher (Ma2). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 4 Jan 89. Philippines: La Trinidad, Benguet.
 2743 GW Riethmacher (B5Bs). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.
 2776 GW Riethmacher (EB4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 16 Apr 89. Philippines: La Trinidad, Benguet. ARSEF 2824, *Pandora blunckii*, also isolated from Riethmacher #EB4.
 3030 W Mechaber (weevil#1318). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Lyonia mariana*. 1 Jun 90. USA: Pemberton, New Jersey.
 3031 W Mechaber (weevil#1334). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Lyonia mariana*. 1 Jun 90. USA: Pemberton, New Jersey.
 3032 W Mechaber (weevil#1354). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Lyonia mariana*. 1 Jun 90. USA: Pemberton, New Jersey.
 3051 MS Goettel (4C). Soil. Jul 90. Mali: Mordiah.
 3296 J Gutierrez Samperio (12) ← ERD Reyes. *Boophilus* sp. [Acar: Ixodidae] on cow. 1987. Mexico: Colima.
 3300 J Gutierrez Samperio (16) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
 3345 F Badilla. *Aenolamia postica* [Homoptera: Ceropidae] on sugar cane. Nov 90. Costa Rica: San Carlos.
 3382 K Ostrovska (12) ← PG Lawlor. *Lutzomyia* sp. [Diptera: Psychodidae]. Jul 91. Guatemala: Tical, Petén.
 3532 AE Hajek (167a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.
 3668 TJ Poprawski (38). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on snail vine. Jan 92. USA: El Centro, California.
 3669 TJ Poprawski (60). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on apple tree. 4 Feb 92. USA: Monroy Estate, El Centro, California.
 3670 TJ Poprawski (5). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 3 Jan 92. USA: Vogles Nursery, Holtville, California.
 3671 TJ Poprawski (7). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on tangerine. 14 Jan 92. USA: Broken Spoke Trailer Park, El Centro, California.

3672 TJ Poprawski (19). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on ornamental kale. 30 Jan 92. Mexico: Veracruz-Tobar Ranch, Est. Victoria, Mexicali Valley, Baja California.

3673 TJ Poprawski (32). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on lemon tree. 22 Jan 92. USA: Brawley, California.

3674 TJ Poprawski (50). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 28 Jan 92. USA: Calexico, California.

3675 TJ Poprawski (5A). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 3 Jan 92. USA: Holtville, California.

3676 TJ Poprawski (2). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orange tree. 13 Jan 92. Mexico.

3677 TJ Poprawski (2A). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on cauliflower. 13 Jan 92. Mexico.

3678 TJ Poprawski (13). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on broccoli. 16 Jan 92. USA: Calexico, California.

3679 TJ Poprawski (15). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on kale. 17 Jan 92. Mexico: Aranza Ranch, Est. Victoria, Mexicali Valley, Baja California.

3704 LA Lacey (022A). Adult, [Homoptera: Aphididae]. 6 Mar 92. Pakistan: Lahore.

3707 LA Lacey (021A). Adult, [Homoptera: Aphididae]. 6 Mar 92. Pakistan: Lahore.

Fusarium acuminatum Ellis & Everhart
[Hyphomycetes]

3218 UAMH (6730) ← MS Goettel (2B-A). [Orthoptera: Acrididae]. 17 Jul 90. Mali: Mordiah.

Fusarium avenaceum (Fries) Saccardo
[Hyphomycetes]

2060 GC Carroll (2(HO-O-Hatch IV)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Fusarium coccophilum (Desmazieres) Wollenweber & Reinking
[Hyphomycetes]

821 GG Soares (1). *Melanaspis obscura* [Homoptera: Diaspididae]. Acc'd Winter 83. USA: Washington, District of Columbia.

2098 DG Holdom (180186). *Lepidosaphes* sp. [Homoptera: Diaspididae]. 18 Jan 86. Indonesia: "Jeruk Siam" Plantation, Sukamundi, Jawa Barat, Java.

Fusarium lateritium Nees:Fries
[Hyphomycetes]

1331 [ARSEF 1416] S Balazy (1437). Adult, [Hymenoptera: Ichneumonidae] in coniferous forest undergrowth. 1 Sep 81. Poland: Wielkopolski National Park.

1416 [ARSEF 1331] S Balazy (1437). Adult, [Hymenoptera: Ichneumonidae] in coniferous forest undergrowth. 1 Sep 81. Poland: Wielkopolski National Park.

2304 [PSU L-237] JE Moxon (3). *Heteropsylla cubana* [Homoptera: Psyllidae]. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Fusarium merismoides Corda
[Hyphomycetes]

2059 GC Carroll (B). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Fusarium moniliforme Sheldon
[Hyphomycetes]

2074 H David. *Melanaspis glomerata* [Homoptera: Diaspididae]. Acc'd 10 Jan 86. India: Sugarcane Breeding Institute, Coimbatore, Tamil Nadu.

Fusarium moniliforme var. *intermedium* Neish & Leggett
[Hyphomycetes]

3223 [IMI 330803] DW Roberts ← PR Srinivas. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd 22 Mar 91. India.

Fusarium nygamai Burgess & Trimboli
[Hyphomycetes]

2316 [PSU M-3959] VS Bhatnagar. *Raghuva albipunctella* [Lepidoptera: Noctuidae]. 8 Oct 86. Senegal: Kaolack.

Fusarium oxysporum Schlechtendahl
[Hyphomycetes]

1371 TJ Poprawski (83-11). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. 24 Aug 83. Canada: L'Acadie, Québec.

Fusarium polypodialidicum Marasas, Nelson, Tousoun & van Wyk
[Hyphomycetes]

3692 AE Hajek (114). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 7 Jun 91. USA: nr. Freese Rd., Ithaca, New York.

3693 AE Hajek (325). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: nr. Birchwood So., Ithaca, New York.

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3694 AE Hajek (E.M.F. #3) or (325) ← J Boettner. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Oct 91. USA: nr. Birchwood So., Holyoke Range, Massachusetts.

3695 AE Hajek (11). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 91. USA: Weakley Hollow, Madison County, Virginia.

3696 AE Hajek (26). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.

Fusarium sambucinum
[Hymomycetes]

3483 AE Hajek ← VC Mastro. 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 30 May 91. USA: St. Paul's Church, Vesuvius, Virginia.

Fusarium semitectum Berkeley ex Ravanel
[Hymomycetes]

2053 MC Rombach (071185-3) ← SB Ahn (E1-7 & E1-5). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 1985. Korea.

2299 [PSU R-8540] M Holderness ← JE Moxon (CCR14-4). *Heteropsylla incisa* [Homoptera: Psyllidae] on *Leucaena leucocephala*. Sep 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

2300 [PSU R-8541] M Holderness ← JE Moxon (CCR15-6). *Heteropsylla incisa* [Homoptera: Psyllidae] on *Leucaena leucocephala*. Sep 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Fusarium solani (Martius) Saccardo
[Hymomycetes]

1148 TJ Poprawski (83-06). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. 24 Aug 83. Canada: L'Acadie, Québec.

2311 [PSU S-1145] JE Moxon (12). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

2312 [PSU S-1146] JE Moxon (15). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

2313 [PSU S-1147] JE Moxon (16). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

2314 [PSU S-1148] JE Moxon (17). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Fusarium subglutinans (Wollenweber & Reinking)
Nelson, Tousson & Marasas
[Hymomycetes]

2141 H David (1). *Scirpophaga excerptalis* [Lepidoptera: Pyralidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.

2142 H David (3). *Chilo sacchariphagus indicus* [Lepidoptera: Pyralidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.

2143 H David (8). *Pyrilla perpusilla* [Hemiptera: Lophopidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.

2144 H David (9). *Pyrilla perpusilla* [Hemiptera: Lophopidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.

2145 H David (10). *Pulvinaria elongata* [Homoptera: Coccidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.

2301 [PSU M-3856] M Holderness ← JE Moxon (CCR16-6). *Heteropsylla incisa* [Homoptera: Psyllidae]. Sep 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Gibellula sp.

[Hymomycetes]

Gibellula cultures are either sterile or produce no conidiogenous apparatus characteristic of this genus as found on infected spiders.

569 RS Soper (81223-1). [Araneida]. 23 Feb 81. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.

570 RS Soper (81228-1). [Araneida]. 28 Feb 81. Indonesia: NW of Denpasar, Kabupaten Tabanan, Subak Kota Bongan, Bali.

1669 G Riba (C-37). [Araneida]. Acc'd 29 Oct 84. France.

Gibellula clavulifera var. *alba* Rombach & Humber
[Hymomycetes]

Gibellula cultures are either sterile or produce no conidiogenous apparatus characteristic of this genus as found on infected spiders.

1909 MC Rombach (9(int.myc.)). *Euophrys trivittata* [Araneida: Salticidae] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Gibellula pulchra (Saccardo) Cavara
[Hymomycetes]

Gibellula cultures are either sterile or produce no conidiogenous apparatus characteristic of this genus as found on infected spiders.

1732 MC Rombach (Gib-Gam). [Araneida]. 13 Nov 84. Sri Lanka: Hemeratgoda Botanical Garden, Gampaha.

Gliocladium roseum (Link:Fries) Thom
[Hymomycetes]

3001 SV Krueger (MF-S). Soil. Feb 90. USA: Geneva, New York.

Hirsutella sp. 1

[Hymomycetes]

2939 M Skinner (Ch, BG and 60(5WM)) ← JF Yuill. *Taeiothrips inconsequens* [Thysanoptera: Thripidae].

Sep 89. USA: Buel's Grove, Chittenden County, Vermont.
2940 M Skinner (Ch, BG and 61(8WM)) ← JF Yuill. *Tae-niothrips inconsequens* [Thysanoptera: Thripidae]. Sep 89. USA: Buel's Grove, Chittenden County, Vermont.

Hirsutella sp.

[Hymomycetes]

Strains listed here have not been satisfactorily identified to species largely due to the lack of adequate taxonomic information for the majority of species in this large and important genus. *Hirsutella* is a known or possible synanamorph for many other hymomycete entomopathogens with teleomorphs classified in the Clavicipitaceae (Pyrenomycetes: Clavicipitaceae).

568 RS Soper (81225-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 25 Feb 81. Indonesia: Salek I Village, Muba District, Sumatera Selatan, Sumatra.
970 [GCRI 45-81] RA Hall. *Abacarus hystrix* [Acari: Eriophyidae]. Acc'd 17 Oct 83. England.
1096 [ARSEF ?1256; IRRI 4A] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. 17 Oct 83. Philippines: IRRI, Los Baños, Manila.
1551 MC Rombach (H.sep.) ← AT Barrion. *Sepedon sphegeus* [Diptera: Sciomyzidae] on rice. 21 Jun 84. Philippines: Brooke's Point region, Palawan.
1625 SG Wright and SP Wright. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
1668 MS McClure. *Nuculaspis tsugae* [Homoptera: Diaspididae] on *Tsuga sieboldii*. 17 May 84. Japan: 1200 m, Mt. Odai-ga-hara, Nara Prefecture.
2208 MC Rombach (030786-2) ← AT Barrion. *Cyrtorhinus lividipennis* [Hemiptera: Miridae] on rice leaf. 1 Jul 86. Philippines: nr. Bo. Looc, Villanueva, Misamis Oriental.
2209 MC Rombach (070786-5). *Cyrtorhinus lividipennis* [Hemiptera: Miridae] on rice leaf. 7 Jul 86. Philippines: nr. Bo. Looc, Villanueva, Misamis Oriental.
2581 D Strongman (1). [Lepidoptera]. Acc'd 9 Aug 88. Canada.
2644 [CNPAF 88-07-16-4; CP 256] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2645 [CNPAF 88-07-16-5; CP 257] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2646 [CNPAF 88-07-16-6; CP 258] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2647 [CNPAF 88-07-16-7; CP 259] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2648 [CNPAF 88-07-16-9; CP 260] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2649 [ARSEF 2992; CNPAF 88-07-16-10; CP 261] DW Roberts ← EC de Moura (H-10), E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2650 [ARSEF 2993; CNPAF 88-07-16-11; CP 262] DW Roberts ← EC de Moura (H-11), E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2651 [CNPAF 88-07-16-12; CP 263] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2652 [CNPAF 88-07-16-13; CP 264] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2653 [CNPAF 88-07-16-14; CP 265] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2654 [CNPAF 88-07-16-15; CP 266] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2655 [CNPAF 88-07-16-16; CP 267] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2656 [CNPAF 88-07-16-17; CP 268] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2657 [CNPAF 88-07-16-18; CP 269] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
2795 BA Jaffee (Hr79a). [Acari]. 3 Jul 89. USA: Yolo County, California.
2796 BA Jaffee (Hr79b). [Acari]. 3 Jul 89. USA: Yolo County, California.
2797 BA Jaffee (Hr79c). [Acari]. 3 Jul 89. USA: Yolo County, California.
2798 BA Jaffee (Hr79d). [Acari]. 3 Jul 89. USA: Yolo County, California.
2799 [IMI 307969] BA Jaffee (Hr58). [Collembola]. 10 Jun 86. USA: Livingston, California.

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2801 BA Jaffee (Hr63). [Acari]. 24 Sep 86. USA: Livingston, California.

2802 BA Jaffee (Hr65). [Acari]. 8 Nov 86. USA: Livingston, California.

2803 BA Jaffee (H69). [Acari]. 22 Apr 88. USA: Livingston, California.

2992 [ARSEF 2649; CNPAF 88-07-16-10; CP 261] L Allee ← EC de Moura (H-10), E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.

3546 M Brownbridge (R-4). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 91. USA: Laggis' sugar maple stand, Caledonia County, Vermont.

3548 M Brownbridge (R-9). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 91. USA: Perry's sugar maple stand, Orange County, Vermont.

3553 M Brownbridge (R-15). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Rowe's sugar maple stand, Caledonia County, Vermont.

***Hirsutella bogoriensis* (sp. nov., unpublished)**
[Hyphomycetes]

Provisional name for undescribed new species.

2187 MC Rombach (220386-1). 22 Mar 86. Korea.

***Hirsutella brownorum* Minter & Brady**
[Hyphomycetes]

3509 P Timper. [Acari] in soil. Rec'd 13 Dec 91. USA: nr. Portageville, Wyoming County, New York.

***Hirsutella citriformis* Speare**
[Hyphomycetes]

490 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

532 DW Roberts (82180-2a). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Indonesia: Tanjungkarang, Lampung, Sumatra.

591 RS Soper (81226-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Feb 81. Indonesia: Bantul District, Yogyakarta, Java.

684 DW Roberts (102981-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 81. Philippines: Los Baños, Manila.

1035 [ARSEF 1446] CBS (418.82). *Myndus crudus* [Homoptera: Cixiidae]. 1979. USA: Fort Pierce, Florida.

1036 CBS (912.70) ← E Müller-Kögler ← SL Valencia. *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Nov 70. Philippines: IRRI, Los Baños, Manila.

1062 [IRRI 10B] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Oct 83. Philippines: IRRI, Los Baños, Manila.

1063 [IRRI 10A] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Oct 83. Philippines: IRRI, Los Baños, Manila.

1064 [IRRI GA] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Oct 83. Philippines: IRRI, Los Baños, Manila.

1243 [IRRI 1AJ] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1244 [IRRI 1B] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1245 [IRRI 1C] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1246 [IRRI 2D] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1247 [IRRI 2H] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1248 [IRRI 2I] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1249 [IRRI 2J] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1250 [IRRI 3D] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1251 [IRRI 3C(2)] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1252 [IRRI 3F] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1253 [IRRI 3G] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1254 [IRRI 4B(a)] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1255 [IRRI 4B] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1256 [ARSEF ?1096; IRRI 4A] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1257 [IRRI 4C] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1258 [IRRI 5B] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1259 [IRRI 5C] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

1436 MC Rombach (10B). *Nilaparvata lugens* [Homoptera: Delphacidae]. 1984. Philippines: IRRI field, Los Baños, Manila.

1446 [ARSEF 1035; CBS 418.82] MC Rombach. *Myndus crudus* [Homoptera: Cixiidae]. 1979. USA: Fort Pierce, Florida.

1549 MC Rombach (H.min.) ← BM Shepard. *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Jun 84. Philippines: Mindanao.

1550 MC Rombach (H.Pal.). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Jun 84. Philippines: Brooke's Point region, Palawan.

1837 DW Roberts (H.citrif) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 2 Nov 84. Sri Lanka: greenhouse colony, Central Agricultural Research Institution, Gannoruwa (Peradeniya).

1908 MC Rombach (5). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

1913 DW Roberts (040485-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. 4 Apr 85. Solomon Islands: nr. Honiara, Guadalcanal.

1917 DG Holdom (10). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Mar 85. Indonesia: nr. Jakarta, Java Barat, Java.

1918 DG Holdom (11). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Mar 85. Indonesia: nr. Jakarta, Java Barat, Java.

1919 DG Holdom (12). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Mar 85. Indonesia: nr. Jakarta, Java Barat, Java.

2099 DG Holdom (280186-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2100 DG Holdom (280186-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2101 DG Holdom (280186-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2102 DG Holdom (280186-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2103 DG Holdom (280186-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2346 [ARSEF 2388 (never frozen)] MC Rombach (111286-4). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 11 Dec 86. Indonesia: nr. Klaten, Jawa Tengah, Java.

2347 [ARSEF 2389 (never frozen)] MC Rombach (181286-1B). *Heteropsylla cubana* [Homoptera: Psyllidae]. 18 Dec 86. Philippines: Leyte.

2420 DG Holdom (050187-1) ← D Djuriadi. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Jan 87. Indonesia: Purwakerto, Jawa Barat, Java.

2422 DG Holdom (310187-4) ← D Djuriadi. *Nilaparvata lugens* [Homoptera: Delphacidae]. 31 Jan 87. Indonesia: Purwakerto, Jawa Barat, Java.

2423 DG Holdom (310187-5) ← D Djuriadi. *Nilaparvata lugens* [Homoptera: Delphacidae]. 31 Jan 87. Indonesia: Purwakerto, Jawa Barat, Java.

2426 DG Holdom (080287-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 8 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2428 DG Holdom (170287-1). Nymph, [Homoptera: Delphacidae]. 17 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2598 MC Rombach ← LT Villacarlos. *Heteropsylla cubana* [Homoptera: Psyllidae]. 1987. Philippines: Visayas, Leyte.

Hirsutella gigantea Petch
[Hyphomycetes]

30 RS Soper ← DE Leonard. [Hymenoptera: Pamphiliidae]. 24 Jun 74. USA: Vanceboro, Maine.

177 [FPMI 755] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 10 May 77. USA: Lincoln, Maine.

178 [FPMI 756] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. May 77. USA: Greenville, Maine.

Hirsutella guyana Minter & Brady
[Hyphomycetes]

878 [CNPAF 83-04-13-2L; CP 108] BP Magalhães and DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.

879 [CNPAF 83-04-13-2P; CP 109] BP Magalhães and DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.

881 [CNPAF 83-04-13-2M; CP 111] BP Magalhães and DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.

882 [CNPAF 83-04-13-Q; CP 112] BP Magalhães and DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.

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883 [CNPAF 83-04-21-1J; CP 113] BP Magalhães and DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 21 Apr 83. Brazil: Goianinha, Rio Grande do Norte.

2352 [ARSEF 2387] MC Rombach (201286-2). [Homoptera: Cicadellidae] on *Maoutia* sp. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2387 [ARSEF 2352] MC Rombach (201286-2). [Homoptera: Cicadellidae] on *Maoutia* sp. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2993 [ARSEF 2650; CNPAF 88-07-16-11; CP 262] L Allee ← EC de Moura (H-11), E Dias Quintela and SM dos Santos. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.

Hirsutella haptosporus [Hyphomycetes]

2226 S Balazy (1765). [Acari: Uropodina] in an ant hill. Acc'd 4 Sep 86. Poland: Jarocin, Kalisz.

Hirsutella inasperata Humber & Rombach [Hyphomycetes]

See note for *Aschersonia inasperata*; *H. inasperata* is a minor synanamorph of this *Aschersonia* species.

2396 MC Rombach (301286-9). *Dialeurodes citri* [Homoptera: Aleyrodidae]. 30 Dec 86. Philippines: tropical forest, Mt. Makiling, Los Baños, Manila.

Hirsutella nr. haptosporus [Hyphomycetes]

1362 S Balazy (1613b). Rec'd 19 May 84. Poland.

1363 S Balazy (1613c). Rec'd 19 May 84. Poland.

1364 S Balazy (1613d). Rec'd 19 May 84. Poland.

2228 S Balazy (1770). [Diptera: Itonididae] under pine bark. Acc'd 4 Sep 86. Poland: District Forest, Sierakov, Pniewy.

Hirsutella radiata Petch [Hyphomycetes]

1369 S Balazy (1441). [Diptera: ?Lauaxiidae] on stem of *Urtica Dioica* in a deciduous forest. 1 Sep 81. Poland: Wielkopolski National Park.

Hirsutella repens [Hyphomycetes]

2348 [ARSEF 2359, 2394] MC Rombach (090586-1) ← RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 86. Korea.

2359 [ARSEF 2348, 2394] MC Rombach (090586-1) ← RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 86. Korea.

2394 [ARSEF 2348, 2359] MC Rombach (090586-1) ← RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 86. Korea.

Hirsutella rhossiliensis Minter & Brady

[Hyphomycetes]

Synonym: *Hirsutella heteroderae* Sturhan & Schneider

2006 [UAMH 5977] BA Jaffee (Hr31). *Criconemella xenoplax* [Tylenchida: Criconematidae]. 25 Oct 83. USA: Erie County, Pennsylvania.

2007 BA Jaffee (Hr42). *Criconemella curvata* [Tylenchida: Criconematidae]. 11 Mar 84. USA: Adams County, Pennsylvania.

2008 BA Jaffee (HR43). *Criconemella xenoplax* [Tylenchida: Criconematidae]. 12 Apr 84. USA: Adams County, Pennsylvania.

2788 BA Jaffee (Hr72). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 12 Jun 89. USA: San Joaquin County, California.

2789 BA Jaffee (Hr73). Male, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 12 Jun 89. USA: San Joaquin County, California.

2790 BA Jaffee (Hr74). Male, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.

2791 BA Jaffee (Hr75). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.

2792 BA Jaffee (Hr76). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.

2793 BA Jaffee (Hr77). Phylum Nemata, Class Secernentia. 19 Jun 89. USA: Solano County, California.

2794 BA Jaffee (Hr78). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.

2894 CBS (216.78) ← R Schneider. *Heterodera humuli* [Tylenchida: Heteroderidae]. Acc'd 21 Nov 89. Germany. CULTURE EX TYPE of *Hirsutella heteroderae*.

2931 BA Jaffee (Hr80). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field; grower = Watanabi, San Joaquin County, California.

2932 BA Jaffee (Hr81). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field; grower = Norman, San Joaquin County, California.

2933 BA Jaffee (Hr82). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field #5, Solano County, California.

3207 P Timper (C3). Phylum Nemata, Class Secernentia. 20 Oct 91. USA: Wyoming County, New York.

Hirsutella satumaensis Aoki [Hyphomycetes]

996 J Aoki (Hir. 1) ← K Katagiri ← T Kushida. *Dioryctria sylvestrella* [Lepidoptera: Pyralidae]. May 69. Japan: Hachioji, Tokyo Prefecture.

Hirsutella strigosa Petch
[Hymomycetes]

2044 [UAMH 5978] MC Rombach (071185-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Nov 85. Philippines: greenhouse colony, IRRI, Los Baños, Manila.
2197 MC Rombach (090686-1). *Nephrotettix virescens* [Homoptera: Cicadellidae]. 9 Jun 86. Philippines: IRRI field, Los Baños, Manila.

Hirsutella subulata Petch
[Hymomycetes]

2227 S Balazy (1809) — RT Mietkiewski. [Lepidoptera: Microlepidoptera]. Acc'd 4 Sep 86. Poland: Siedlce.

Hirsutella thompsonii Fisher
[Hymomycetes]

The separation of *H. thompsonii* into two varieties based on whether synnemata may or may not form in culture is unreliable and probably artificial. Some strains included may form synnemata but do not do so consistently; these strains could be recognized as *Hirsutella thompsonii* var. *synnematosa* Samson, McCoy & O'Donnell if accepting this variety as a legitimate taxon.

137 [ATCC 24874; CBS 952.73] CW McCoy (Fla. 68). *Phyllocoptuta oleivora* [Acari: Eriophyidae]. 1970. USA: Orlando, Florida.
241 [CBS 556.77B] CW McCoy. *Phyllocoptuta oleivora* [Acari: Eriophyidae] on citrus. 1972. USA: Lake Alfred, Florida.
253 [CBS 556.77C] CW McCoy. *Phyllocoptuta oleivora* [Acari: Eriophyidae] on citrus. 1975. USA: Lake Alfred, Florida.
254 [CBS 555.77] CW McCoy — JR Baker. *Acalitus vaccinii* [Acari: Eriophyidae] on blueberry. 1967. USA: Raleigh, North Carolina.
255 [ARSEF ?411; ATCC 3010; CBS 556.77A] CW McCoy — CM Searle. *Eriophyes sheldoni* [Acari: Eriophyidae] on citrus. 1970. Zimbabwe: Mazoe.
256 [CBS 450.78] CW McCoy — RA Hall. *Eriophyes guerreronis* [Acari: Eriophyidae] on coconut. 1978. Jamaica.
257 [CBS 451.78] CW McCoy — RA Hall. *Eriophyes guerreroris* [Acari: Eriophyidae] on coconut. Mar 78. Ivory Coast.
258 [ARSEF 414; CBS 452.78] CW McCoy — RA Hall. *Colomerus novahebridensis* [Acari: Eriophyidae] on coconut. May 78. Papua New Guinea: New Britain.
259 [CBS 556.77D] CW McCoy — B Villalon. *Phyllocoptuta oleivora* [Acari: Eriophyidae] on citrus. 1972. USA: Weslaco, Texas.
414 [ARSEF 258; CBS 452.78] RA Hall. *Colomerus novahebridensis* [Acari: Eriophyidae] on coconuts. May 78. Papua New Guinea: New Britain.
1947 MC Rombach. [Acari: Tarsonomidae] on beans. Jul 85. Philippines: Palawan. This strain may produce synnemata in vitro.

2012 CIRPON — DR Sosa Gomez. *Phyllocoptuta oleivora* [Acari: Eriophyidae]. 1984. Argentina: Tucumán.
2459 TJ Poprawski (8703) — AJ Nasca (Ht-R). *Eriophyes sheldoni* [Acari: Eriophyidae]. Acc'd 23 Oct 87. Zimbabwe. This strain may produce synnemata in vitro.
2464 TJ Poprawski (8704) — AJ Nasca (Ht-T1). *Phyllocoptuta oleivora* [Acari: Eriophyidae]. 1983. Argentina: Tucumán.
2800 BA Jaffee (H59). [Acari]. 10 Jun 86. USA: Livingston, California.
3323 R Ochoa and TG Zoebisch — A Gamboa. *Dolichotetranychus floridanus* [Acari: Tenuipalpidae] on pineapple (*Ananas cosmostus* (L.) Mell.). Rec'd 30 Apr 91. Costa Rica: PINDECO (Del Monte pineapple industry), Buenos Aires, Puntarenas.
3482 TG Zoebisch. Rec'd 28 Oct 91.

Hirsutella versicolor Petch
[Hymomycetes]

1034 [ARSEF 1557 (deaccessioned)] CBS (422.82) — HC Evans. [Homoptera: Membracidae] on forest herb. Jul 82. Brazil: Jari-Monte Dourado, Pará.
1037 CBS (423.82) — HC Evans. [Homoptera: Membracidae] on cacao leaf together with *Torrubiella pruinosa*. Jul 82. Brazil: Ovro Petro, Rondônia.

Hirsutella verticilloides Fisher
[Hymomycetes]

2599 MC Rombach (190688-1) — AT Barrion. *Idioscopus clypealis* [Homoptera: Cicadellidae] on Indian mango, *Mangifera indica* L. Acc'd 12 Sep 88. Philippines: Umalí Subdivision, Los Baños, Manila.

Humicola sp.
[Hymomycetes]

2069 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Hymenostilbe verrucosa Mains
[Hymomycetes]

2002 M Shimazu. [Araneida]. 16 Jul 85. USA: Allegany State Park, Salamanca, New York.

Lagenidium caudatum Barron
[Oomycetes: Lagenidiales]

2003 [ATCC 58383] BA Jaffee (LcD). *Xiphinema rivesi* [Dorylaimida: Longidoridae]. Aug 84. USA: Snyder County, Pennsylvania.

Lagenidium giganteum Couch
[Oomycetes: Lagenidiales]

373 [ARSEF 746 (deaccessioned)] JN Couch — SV Romney (LGNC-1). *Culisetia melanura* [Diptera: Culicidae]. 1975. USA: Chapel Hill, North Carolina.

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Lagenidium giganteum
Metarhizium album

748 AL Knight (LG/NC-2). [Diptera: Culicidae]. 1979. USA: Chapel Hill, North Carolina.

749 HC Chapman and FE Glenn. *Culex territans* [Diptera: Culicidae]. 1975. USA: Moss Bluff, Louisiana.

1384 EM McCray and CJ Umphlett. *Culex tarsalis* [Diptera: Culicidae]. 1979. USA: Colusa, California.

2529 [ARSEF ?1940] SP Frances (LAG) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 8 Jun 85. Australia: Millaa Millaa, Queensland.

2530 SP Frances (MALANDA1) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Apr 86. Australia: Malanda, Queensland.

2531 [ATCC 76240] SP Frances (MILLAA1) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Apr 86. Australia: Millaa Millaa, Queensland.

2532 SP Frances (MILLAA2) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Apr 86. Australia: Millaa Millaa, Queensland.

2533 SP Frances (MILLAA3) and AW Sweeney. *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 14 Jun 87. Australia: Millaa Millaa, Queensland.

3326 JL Kerwin. Larva, [Diptera: Culicidae]. Rec'd 20 May 91. Colombia: nr. Medellin, Antioquia.

3327 [ARSEF 3328 (deaccessioned)] JL Kerwin (BS). *Aedes melanimon* [Diptera: Culicidae]. May 87. USA: duck club, Butte Sink area, nr. Colusa, California.

Leptolegnia sp.

[Oomycetes: Saprolegniales]

2004 [ATCC 58384] BA Jaffee (WPG). *Xiphinema* sp. [Dorylaimida: Longidoridae]. 23 Jul 84. USA: Snyder County, Pennsylvania.

Leptolegnia chapmanii Seymour

[Oomycetes: Saprolegniales]

2562 [ARSEF 2680] JC Lord (Bartow A). *Mansonia titillans* [Diptera: Culicidae]. 8 Feb 88. USA: abandoned phosphate pit, Bartow, Florida.

2680 [ARSEF 2562] JC Lord (Bartow A). *Mansonia titillans* [Diptera: Culicidae]. Rec'd 6 Feb 89. USA: abandoned phosphate pit, Bartow, Florida.

2681 JC Lord ← TJ McInnis. *Culex pipiens quinquefasciatus* [Diptera: Culicidae]. Rec'd 6 Feb 89. USA: Clemson, South Carolina.

2682 JC Lord. *Culex* sp. [Diptera: Culicidae]. 1987. USA: ground pool, Levy County, Florida.

Macrobiotophthora vermicola (McCulloch) Tucker

[Zygomycetes: Entomophthorales]

650 EC Bernard. *Cruznema lambdiense* [Rhabditida: Rhabditidae]. 1977. USA: Tennessee.

Massospora cicadina Peck

[Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

374 RS Soper. *Magicicada septendecim* [Homoptera: Cicadidae]. 16 Jun 79. USA: Mohawk Lake Preserve, New Paltz, New York.

Metarhizium sp.

[Hyphomycetes]

2210 [ARSEF 2225] MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 86. Indonesia: Baritiwurung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.

2224 MC Rombach (140486). [Coleoptera: Curculionidae]. 14 Apr 86. Indonesia.

2225 [ARSEF 2210] MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 86. Indonesia: Baritiwurung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.

2556 S Sandoval (87). Acc'd 18 Mar 88. Ecuador.

2596 RC Rajak (ENT/12). *Pyrausta machaeralis* [Lepidoptera: Pyralidae] on teak, *Tectona grandis*. Acc'd 12 Sep 88. India.

3612 IMI (I91-646). *Kraussaria angulifera*. Rec'd 26 Feb 92. Benin.

3613 IMI (I91-647). *Hieroglyphus daganensis*. Rec'd 26 Feb 92. Benin.

3614 IMI (I91-671). *Kraussaria angulifera*. Rec'd 26 Feb 92. Benin.

3615 IMI (I91-672). *Zonocerus variegatus* [Orthoptera: Pyrgomorphidae]. Rec'd 26 Feb 92. Guinea-Bissau.

3616 IMI (I91-673). *Diabolocatantops axillaris*. Rec'd 26 Feb 92. Tchad.

3617 IMI (I91-674). *Acrida bicolor*. Rec'd 26 Feb 92. Tchad.

3618 IMI (I91-675). *Zonocerus variegatus* [Orthoptera: Pyrgomorphidae]. Rec'd 26 Feb 92. Mali.

Metarhizium album Petch

[Hyphomycetes]

1840 MC Rombach. *Nephrotettix virescens* [Homoptera: Cicadellidae]. Acc'd 29 Jan 85. Philippines: IRRI, Los Baños, Manila.

1941 MC Rombach (MPAL) ← DJ Im. *Nephrotettix virescens* [Homoptera: Cicadellidae] on rice. Jul 85. Philippines: Roxas, Palawan.

1942 MC Rombach (MLAG). *Nephrotettix virescens* [Homoptera: Cicadellidae] on rice. Nov 84. Philippines: Laguna.

1943 MC Rombach (MLAGwhite). *Nephrotettix virescens* [Homoptera: Cicadellidae] on rice. Nov 84. Philippines: Laguna.

2081 MC Rombach ← HC Evans (I85-87) ← MJ Coch. [Homoptera: Cicadellidae] on mango. Dec 85. Philippines: Tuguegarao, Cagayan.

2082 [IMI 300150] MC Rombach ← HC Evans (I85-12). *Cofana spectra* [Homoptera: Cicadellidae] on rice. Mar 85. Indonesia: Kotamobagu, Sulawesi Utara, Celebes.

2176 MC Rombach (130586-17). *Nephrotettix virescens* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.

2177 MC Rombach (130586-18). *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.

2178 MC Rombach (130586-19). *Nephrotettix virescens* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.

2179 MC Rombach (130586-20). *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.

Metarhizium anisopliae (Metschnikoff) Sorokin
[Hyphomycetes]

These strains have not been reconfirmed to belong to *Metarhizium anisopliae* var. *anisopliae*, the small-spored variety of this species. Strains listed here are very unlikely to be more properly assigned to *M. anisopliae* var. *majus*, the large-spored variety of this species. There may be considerable variation among strains in fundamental characters such as color, and relative production of mycelium and conidia.

23 RS Soper (F84-1-1) ← RL Rabb. *Conoderus* sp. [Coleoptera: Elateridae]. 1961. USA: North Carolina.

324 [CSIRO FI48] RS Soper ← R Teakle (M-100). *Austrotracris guttulosa* [Orthoptera: Acrididae]. Feb 79. Australia: Queensland.

346 [CSIRO FI24] *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. Australia: Adelaide, South Australia.

435 [CSIRO FI53] SJ Gagen (1). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Warnambool, Victoria.

436 SJ Gagen (2). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Hexham, Victoria.

437 SJ Gagen (3). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia.

438 [CSIRO FI54] SJ Gagen (4). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia.

439 SJ Gagen (5). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Byaduck, Victoria.

440 SJ Gagen (6). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Warnambool, Victoria.

441 SJ Gagen (7). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Warnambool, Victoria.

442 SJ Gagen (8). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Hawkesdale, Victoria.

443 SJ Gagen (9). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Camperdown, Victoria.

444 SJ Gagen (10). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Byaduck, Victoria.

445 SJ Gagen (11). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Carapook, Victoria.

446 SJ Gagen (12). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Mortlake, Victoria.

455 [QEC 410.0] RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

456 [QEC 411.0] RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

457 [QEC 412.0] RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

472 [CSIRO FI55; DAR 29768] J Walker ← A Wescott. [Coleoptera: Scarabaeidae]. Sep 77. Australia: BCRI, R.D. 66, Rydalmer, New South Wales.

485 [QEC 413.0] RS Soper (NT-21). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

486 [QEC 414.0] RS Soper (NT-25). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

487 [QEC 415.0] RS Soper (NT-20). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

488 [QEC 416.0] RS Soper (NT-24). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

489 [QEC 417.0] RS Soper (NT-22). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

543 DW Roberts (81280). *Recilia dorsalis* [Homoptera: Cicadellidae]. 12 Aug 80. Philippines: greenhouse, IRRI, Los Baños, Manila.

549 [QEC 418.0] DW Roberts. Metabiol. Nov 80. Brazil.

550 [QEC 419.0] DW Roberts. Metabiol. Nov 80. Brazil.

551 [QEC 420.0] DW Roberts. Metabiol. Nov 80. Brazil.

552 DW Roberts ← MA Naves. *Galactica* sp. [Lepidoptera]. Nov 80. Brazil: Brasília, Federal District.

576 [QEC 427.0] RS Soper (8133-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.

587 JM Lenné (C7). *Mocis* sp. [Lepidoptera: Noctuidae]. Rec'd 13 Apr 81. Colombia: Carimagua.

588 [QEC 431.0] JM Lenné (E1). Soil. Rec'd 13 Apr 81. Colombia: Espinal, Tolima.

589 [QEC 432.0] JM Lenné (P1). Soil. Rec'd 13 Apr 81. Colombia: Popayán, Cauca.

683 [QEC 433.0] DW Roberts (102381-9). Larva, [Coleoptera: Scarabaeidae] in sugar cane. 23 Oct 81. PR China: Guanzhou, Kwon Tung.

703 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 81. PR China: Hangzhou, Zhejiang.

712 DW Roberts. 7 May 81. PR China.

724 [CNPAF 82-2-15-04; CP 25] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.

725 [CNPAF 82-1-6-02; CP 8] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.

727 [CNPAF 82-2-2-01; CP 21] RA Daoust ← Y Tanaka. [Orthoptera: Tettigoniidae]. 2 Feb 82. Brazil: CNPAF, Goiânia, Goiás.

728 [CNPAF 82-2-3-02; CP 22] RA Daoust. [Orthoptera]. 3 Feb 82. Brazil: CNPAF, Goiânia, Goiás.

729 [CNPAF 82-2-15-02; CP 24] RA Daoust. *Deois flavopicta* [Homoptera: Cercopidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.

755 [CNPAF 82-4-5-01; CP 39] RA Daoust ← J da Silva Carneiro. [Hemiptera: Pentatomidae]. 5 Apr 82. Brazil: UEPAE/Manaus, Manaus, Amazonas.

759 [CNPAF 82-4-1-01; CP 37] RA Daoust. *Deois flavopicta* [Homoptera: Cercopidae]. 1 Apr 82. Brazil: CNPAF, Goiânia, Goiás.

760 [CNPAF 82-2-15-03; CP 31] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.

782 [CNPAF 82-5-4-01; CP 52] RA Daoust ← SM dos Santos. *Deois flavopicta* [Homoptera: Cercopidae]. 4 May 82. Brazil: CNPAF, Goiânia, Goiás.

794 GA Kuter (300). Leaf litter under sugar maple. 1975. USA: Abraham's Woods, University of Wisconsin Arboretum, Green County, Wisconsin.

797 DA Rodriguez Sierra. Larva, *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Jun 81. Colombia: Madrid, Cundinamarca.

798 DA Rodriguez Sierra. Nymph, *Aenolamia varia* [Homoptera: Cercopidae]. 1979. Colombia: Villavicencio, Meta.

808 [CNPAF 82-7-23-01; CP 62] RA Daoust ← SM dos Santos. *Coleomegilla maculata* [Coleoptera: Coccinellidae]. 23 Jul 82. Brazil: CNPAF, Goiânia, Goiás.

817 GG Soares (17). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.

818 GG Soares (19). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.

819 GG Soares (21) ← JP Aeschlimann. 5th instar larva, *Sitona discoideus* [Coleoptera: Curculionidae]. 29 Mar 82. France: Montpellier, Hérault.

820 GG Soares (A7) ← M Marchal. 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jan 82. France: Angers, Maine-et-Loire.

844 DW Roberts ← B Schaeffenberg (Ma16). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

845 DW Roberts ← B Schaeffenberg (Ma13). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

846 DW Roberts ← B Schaeffenberg (Ma18). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

847 DW Roberts ← B Schaeffenberg (Ma1). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

848 DW Roberts ← B Schaeffenberg (Ma17). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

849 DW Roberts ← B Schaeffenberg (Ma8). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

850 DW Roberts ← B Schaeffenberg (Ma15). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

851 DW Roberts ← B Schaeffenberg (Ma10). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

852 DW Roberts ← B Schaeffenberg (Ma6). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

853 DW Roberts ← B Schaeffenberg (Ma11). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

854 DW Roberts ← B Schaeffenberg (Ma14). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

855 DW Roberts ← B Schaeffenberg (Ma5). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

856 DW Roberts ← B Schaeffenberg (Ma12). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

857 DW Roberts ← B Schaeffenberg (Ma9). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

858 DW Roberts ← B Schaeffenberg (Ma19). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

859 DW Roberts ← B Schaeffenberg (Ma4). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

860 DW Roberts ← B Schaeffenberg (Ma7). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

861 DW Roberts ← B Schaeffenberg (Ma20). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

862 DW Roberts ← B Schaeffenberg (Ma2). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

863 DW Roberts ← B Schaeffenberg (Ma3). Single spore isolation. Rec'd Spring 83. Lab. manipulation.

864 DW Roberts (Ma Teetor S2 SS#19) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

865 DW Roberts (Ma Teetor S2 SS#20) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

866 DW Roberts (Ma Teetor S2 SS#22) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

867 DW Roberts (Ma Teetor S2 SS#18) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

868 DW Roberts (Ma Teetor S2 SS#16) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

869 DW Roberts (Ma Teetor S2 SS#17) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

870 DW Roberts (Ma Teetor S2 SS#15) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

871 DW Roberts (Ma Teetor S2 SS#21) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

872 [ARSEF 888 (deaccessioned); QEC 408.0] DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.

873 DW Roberts (Ma Teetor S2 SS#4) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.

874 DW Roberts (Ma Teetor S2 SS#2) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.

875 DW Roberts (Ma Teetor S2 SS#1) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.

889 DW Roberts (Ma Teetor S2 SS#9) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

890 DW Roberts (Ma Teetor S2 SS#8) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

891 DW Roberts (Ma Teetor S2 SS#7) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

892 DW Roberts (Ma Teetor S2 SS#6) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

893 DW Roberts (Ma Teetor S2 SS#3) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

894 DW Roberts (Ma Teetor S2 SS#14) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

895 DW Roberts (Ma Teetor S2 SS#13) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

896 DW Roberts (Ma Teetor S2 SS#12) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

897 DW Roberts (Ma Teetor S2 SS#11) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

898 DW Roberts (Ma Teetor S2 SS#10) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.

901 DW Roberts (VSS#6). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.

902 DW Roberts (VSS#5). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.

903 DW Roberts (VSS#4). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.

904 DW Roberts (VSS#3). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.

905 DW Roberts (VSS#2). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.

906 DW Roberts (VSS#1). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.

907 [QEC 421.0] K Al-Aidroos (DIII 3B Bes 48 (recombinant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 25 Jun 83. Lab. manipulation.

908 K Al-Aidroos (S7N5 (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.

909 [QEC 408.1] K Al-Aidroos (5.173 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.

910 [QEC 423.0] K Al-Aidroos (D95A Bes 140 (recombinant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.

911 [QEC 424.0] K Al-Aidroos (19-1a5 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.

912 [QEC 425.0] K Al-Aidroos (D198A) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.

913 [QEC 426.0] K Al-Aidroos (D95A (diploid, recombinant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.

921 [QEC 422.1] K Al-Aidroos (42.2a9 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.

922 K Al-Aidroos (5.281 (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.

929 [CNPAF 82-12-15-01; CP 67] RA Daoust ← SM dos Santos. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Dec 82. Brazil: CNPAF, Goiânia, Goiás.

932 [CNPAF 82-12-20-02; CP 70] RA Daoust. [Coleoptera: Bruchidae]. 20 Dec 82. Brazil: CNPAF, Goiânia, Goiás.

939 [CNPAF 83-3-3-03; CP 78] RA Daoust ← SM dos Santos. [Coleoptera: Carabidae]. 3 Mar 83. Brazil: CNPAF, Goiânia, Goiás.

954 [CNPAF 83-03-16L; CP 99] RA Daoust and BP Magalhães. [Coleoptera: Bruchidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.

955 [CNPAF 83-4-27; CP 100] RA Daoust ← SM dos Santos. *Deois flavopicta* [Homoptera: Cercopidae]. 27 Apr 83. Brazil: CNPAF, Goiânia, Goiás.

960 K Al-Aidroos (DIII 3B (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 26 Aug 83. Lab. manipulation.

965 K Al-Aidroos (5.378 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.

966 K Al-Aidroos (19.1 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.

967 K Al-Aidroos (5.287 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.

968 K Al-Aidroos (DIII 3A (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.

977 [GCRI 134-82] RA Hall ← A Vey. *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 83. France.

1009 J Aoki (Met. 5) ← K Kojo. *Ornebius kanetataki* [Orthoptera: Gryllidae]. Jul 76. Japan: Fuchu, Tokyo Prefecture.

1011 J Aoki (Met. 8). Soil. Aug 82. Japan: Fuchu, Tokyo Prefecture.

1022 K Al-Aidroos (5.304 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.

1023 K Al-Aidroos (JX1.23C (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.

1024 K Al-Aidroos (JX1.23A (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.

1025 K Al-Aidroos (42.2 (EMS mutant of 5.42)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.

1044 [EPABA E-6(ESMC)] DW Roberts ← J Ventura. *Deois flavopicta* [Homoptera: Cercopidae]. Acc'd 13 Jan 84. Brazil: Espírito Santo.

1045 [ARSEF 1299; EPABA A-24] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Aug 78. Brazil: Bahia.

1046 J Aoki (Met. 6) ← K Yanase. *Popillia japonica* [Coleoptera: Scarabaeidae]. Jul 77. Japan: Fuchu, Tokyo Prefecture.

1055 [CNPS 19] F Moscardi. *Nezara viridula* [Hemiptera: Pentatomidae]. 1983. Brazil: Londrina, Paraná.

1056 [CNPS 25] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: Londrina, Paraná.

1057 [CNPS 30A] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.

1059 [CNPS 39C] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.

1066 [ARSEF ?397] TJ Poprawski ← S Keller (92). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 29 May 81. Switzerland: Iselisberg.

1080 LA Lacey. *Heliothis zea* [Lepidoptera: Noctuidae]. Fall 83. USA: Gainesville, Florida.

1083 K Al-Aidroos (5A.11 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1084 K Al-Aidroos (5A.7 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1085 K Al-Aidroos (5A.1 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1086 K Al-Aidroos (5A.10 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1087 K Al-Aidroos (5A (UV irradiated mutant of 5)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1088 K Al-Aidroos (5A.12 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1089 K Al-Aidroos (JXIV.245 (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1090 K Al-Aidroos (KIIVA (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1091 K Al-Aidroos (JIIXIV (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1094 DW Roberts ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). [Lepidoptera]. Acc'd 16 Feb 84. Lab. manipulation.

1095 DW Roberts ← S Keller (Ma 43). *Carpocapsa pomonella* [Lepidoptera: Olethreutidae]. Acc'd 16 Feb 84. Austria.

1097 K Al-Aidroos (JIVD (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

1112 KV Deseo (32B) — Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 82. Italy: Modena, Emilia-Romagna.

1116 KV Deseo (40B) — Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae]. Aug 82. Italy: Ravenna, Emilia-Romagna.

1120 KV Deseo (72). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. Oct 82. Italy: Modena, Emilia-Romagna.

1187 [INRA Ma-23] TJ Poprawski ← GCN Latch. *Oxy- canus* sp. [Lepidoptera: Hepialidae]. 20 Jan 66. New Zealand: Palmerston North, North Island.

1278 IMI (170289) ← GL Barron. Soil. 1973. Canada.

1280 DW Roberts (single spore isolate #1) or (MaT3JB-C). *Popillia japonica* [Coleoptera: Scarabaeidae]. 1978. USA: Clinton Corners, New York.

1281 DW Roberts. Chemical mutant of Roberts #F84—ARSEF 23. Acc'd 3 May 84. Lab. manipulation.

1282 K El-kadi (CEPLAC-ICI). [Homoptera: Cercopidae]. Acc'd 3 May 84. Brazil: Bahia.

1284 [QEC 434.0] DW Roberts (BPH-12). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1285 [QEC 435.0] DW Roberts (BPH-13). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1286 [QEC 436.0] DW Roberts (BPH-4). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1290 [QEC 437.0] DW Roberts (BPH-11). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1298 DW Roberts (single spore isolate #9) or (MaT3JB-B). *Popillia japonica* [Coleoptera: Scarabaeidae]. Feb 78. USA: Clinton Corners, New York.

1299 [ARSEF 1045; EPABA A-24] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Aug 78. Brazil: Bahia.

1300 [QEC 438.0] DW Roberts (VIII). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Plot, IRRI, Los Baños, Manila.

1304 [QEC 439.0] DW Roberts (D). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1373 S Keller (44). Acc'd 21 Jun 84. Switzerland.

1374 S Keller (45). Acc'd 21 Jun 84. Switzerland.

1375 S Keller (46). Acc'd 21 Jun 84. Switzerland.

1376 S Keller (47). Acc'd 21 Jun 84. Switzerland.

1377 [ARSEF ?396] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 77. Switzerland.

1378 Acc'd 26 Jun 84.

1379 [EPABA A-12] DW Roberts ← E Matta. [Homoptera: Cercopidae]. 22 Aug 78. Brazil: Bahia.

1380 Acc'd 26 Jun 84.

1382 [EPABA A-10] DW Roberts ← E Matta. [Homoptera: Cercopidae]. 22 Aug 78. Brazil: Bahia.

1386 Acc'd 5 Jul 84.

1387 Acc'd 5 Jul 84.

1388 Acc'd 5 Jul 84.

1432 MC Rombach (B). *Scotinophara coarctata* [Hemiptera: Pentatomidae]. 14 Apr 84. Philippines: Maasin, Palawan.

1435 MC Rombach (II.1). *Scotinophara coarctata* [Hemiptera: Pentatomidae]. 14 Apr 84. Philippines: Maasin, Palawan.

1489 [INRA Ma-139] GG Soares ← G Riba. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Acc'd 21 Aug 84. France.

1490 [INRA Ma-127] GG Soares ← P Ferron ← DW Roberts. Acc'd 21 Aug 84.

1545 MC Rombach (Ma Pal.II). Adult, *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. Jun 84. Philippines: Brooke's Point region, Palawan.

1548 MC Rombach (Ma Pal.I). Adult, *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. May 84. Philippines: nr. PNAC Station, Arbor Lan, Palawan.

1724 DW Roberts (29103) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1725 DW Roberts (291017) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1726 DW Roberts (291013) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1727 DW Roberts (291015) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1728 DW Roberts (291001) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1729 DW Roberts (2910B) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1744 DW Roberts (291014) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1745 DW Roberts (291016) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1823 DW Roberts (29103b) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

1878 DW Roberts (MaT3JB-A). *Popillia japonica* [Coleoptera: Scarabaeidae]. 1978. USA: Clinton Corners, New York.

1890 DW Roberts ← RA Daoust (ZcG3). [Homoptera: Cercopidae]. Jan 80. Brazil: Pará.

1891 DW Roberts ← MA Naves (460(88)). [Homoptera: Cercopidae]. Jan 80. Brazil: Pará.

1892 DW Roberts ← RA Daoust (Eq-ESMC-CsI). *Deois flavopicta* [Homoptera: Cercopidae] isolate (Daoust #E-9) passed through *Culex quinquefasciatus* [Diptera: Culicidae]. Acc'd 6 Jun 85. Lab. manipulation.

1895 DW Roberts ← RA Daoust (ZcG1). [Homoptera: Cercopidae]. Jan 80. Brazil: Pará.

1896 [EPABA A-8(BAMC)] DW Roberts ← E Matta. *Mahanarva posticata* [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil: Salvador, Bahia.

1897 DW Roberts (V-14 (F84 mutant)). *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 11 Jun 85. USA: California.

1898 [EPABA A-18 (BAMC)] DW Roberts ← E Matta. *Mahanarva posticata* [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil: Salvador, Bahia.

1899 [EPABA A-23] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil.

1900 [EPABA A-19 (BAMC)] DW Roberts ← E Matta. *Deois flavopicta* [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil: Salvador, Bahia.

1901 DW Roberts ← MA Naves (CG-6). [Coleoptera: Carabidae]. Jan 80. Brazil: Pará.

1902 DW Roberts ← RA Daoust (ZcG4). [Homoptera: Cercopidae]. Jan 80. Brazil.

1903 DW Roberts (103a). *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 11 Jun 85. USA.

1910 DW Roberts ← S Keller (Ma52(S4)). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Acc'd 18 Jun 85. Germany.

1911 [EPABA A-2] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil.

1912 [EPABA 1141(29v)] DW Roberts. [Homoptera: Cercopidae]. Rec'd Aug 78. Mexico.

2038 MC Rombach (161085-35) ← SB Ahn (D2-4). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 16 Oct 85. Korea.

2039 MC Rombach (161085-36) ← SB Ahn (E2-13). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 16 Oct 85. Korea.

2042 [IMI 113863] MC Rombach ← GL Barron (10277). Peat soil in cedar bog. 1960. Canada: Guelph, Ontario.

2043 MC Rombach (061185-1). *Nephrotettix cincticeps* [Homoptera: Cicadellidae]. 6 Nov 85. Philippines: IRRI field, Los Baños, Manila.

2076 [CP 194] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.

2077 [CP 195] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.

2107 [CBS 316.51; IMI 14746; NRRL 1944; QM 191] MC Rombach ← KB Raper and LP Rockwood. Larva, *Agriotes* sp. [Coleoptera: Elateridae]. 1947. USA: Forest Grove, Oregon.

2153 MC Rombach (200386-2). *Nephrotettix virescens* [Homoptera: Cicadellidae]. 20 Mar 86. Indonesia: Maros Research Institute, Maros, Sulawesi Selatan, Celebes.

2211 [CNPAF 86-06-02-3; CP 207] DW Roberts ← JFS Martins. Soil. 2 Jun 86. Brazil: Campinas, São Paulo.

2212 [CNPAF 86-06-05-9; CP 208] DW Roberts ← PMOJ Neves. *Tibraca limbativentris* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2213 [CNPAF 86-06-05-8; CP 209] DW Roberts ← O Sales. *Tibraca limbativentris* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2214 [CNPAF 86-06-05-7; CP 210] DW Roberts ← JFS Martins. *Tibraca limbaticentres* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2341 [ARSEF 2381 (never frozen), 2383 (never frozen)] MC Rombach (120286-2). *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. 12 Feb 86. Philippines: Palawan.

2342 [ARSEF 2384 (never frozen)] MC Rombach (120286-3). *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. 12 Feb 86. Philippines: Palawan.

2343 [ARSEF 2385 (never frozen)] MC Rombach (120286-4). *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. 12 Feb 86. Philippines: Palawan.

2353 [ARSEF 2382 (never frozen)] MC Rombach (201286-4). [Homoptera: Cicadellidae]. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2421 DG Holdom (050187-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Jan 87. Indonesia: CIBAGEIGY R & D Station, Cikampek, Jawa Barat, Java.

2510 [CP 218] SM dos Santos. *Formica atta* [Hymenoptera: Formicidae]. 29 Apr 87. Brazil: CNPAF, Goiânia, Goiás.

2513 [CP 236A] SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Oct 86. Brazil: CNPAF, Goiânia, Goiás.

2517 [CP 226] F Moscardi. *Deois flavopicta* [Homoptera: Cercopidae]. Acc'd 8 Dec 87. Brazil: Joquapita.

2518 [CP 224] *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 8 Dec 87. New Zealand.

2521 [CP 225] F Moscardi. *Deois* sp. [Homoptera: Cercopidae]. 1983. Brazil: CNPS, Londrina, Paraná.

2547 SV Krueger ← FL Consolie and MG Villani. *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Oct 87. USA: Syracuse, New York.

2548 SV Krueger ← FL Consolie and MG Villani. *Popillia japonica* [Coleoptera: Scarabaeidae]. Oct 87. USA: Sleepy Hollow, New York.

2560 [CP 232] SB Alves (SPL-54A). *Atta sexdens rubropilosa* [Hymenoptera: Formicidae]. Acc'd 13 Apr 88. Brazil: Piracicaba, São Paulo.

2561 [CP 233] SB Alves (507). *Solenopsis* sp. [Hymenoptera: Formicidae]. Acc'd Apr 88. Brazil: Piracicaba, São Paulo.

2574 Acc'd 11 Jul 88.

2575 [IMI I91-613] RJ St. Leger (ME-1) ← Tate and Lyle Ltd (Batch No. B1830). *Curculio caryaae* [Coleoptera: Curculionidae]. Acc'd 21 Jul 88. USA: South Carolina.

2602 MS Goettel (T1) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 11 Oct 88. Lab. manipulation.

2603 MS Goettel (T3) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 11 Oct 88. Lab. manipulation.

2604 MS Goettel (T4) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 11 Oct 88. Lab. manipulation.

2605 MS Goettel (T5) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.

2606 MS Goettel (T6) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.

2607 MS Goettel (T7) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.

2608 MS Goettel (T8) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.

2609 MS Goettel (T9) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.

2610 MS Goettel (T10) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.

2611 MS Goettel (T2) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 17 Oct 88. Lab. manipulation.

2612 MS Goettel (T11) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 17 Oct 88. Lab. manipulation.

2627 [CNPAF Pl-43; CP 242] DW Roberts ← Planalsucar. *Mahanarva posticata* [Homoptera: Cercopidae]. 23 May 88. Brazil: Usina Pedrosa, Pernambuco.

2628 [CNPAF Pl-88; CP 243] DW Roberts ← Planalsucar. 23 May 88. Brazil: Carpina, Pernambuco.

2634 [CNPAF D4; CP 251] DW Roberts ← Dep. Genética da ISALQ. Mutant of E9 ESMC parent. Rec'd 23 Nov 88. Brazil: Piracicaba, São Paulo.

2635 [CNPAF 88-5-6B; CP 253] DW Roberts ← E Dias Quintela. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 6 May 88. Brazil: CNPAF, Goiânia, Goiás.

2735 GW Riethmacher (Ma1). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 29 Dec 88. Philippines: La Trinidad, Benguet.

2741 GW Riethmacher (T11). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 18 Dec 88. Philippines: La Trinidad, Benguet.

2764 SR Sánchez Peña (1). Dermaptera isolate passed through *Pogonomyrmex* sp. [Hymenoptera: Formicidae]. 22 Apr 87. Mexico: Tecomán, Colima.

2786 RA Humber ← II Kirijak. [Orthoptera: Gryllotalpidae]. Jul 89. Commonwealth of Independent States: Kishinev, Moldova.

2805 GW Riethmacher (B13m). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 11 Apr 89. Philippines: Atok, Benguet.

2806 GW Riethmacher (B14m). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 4 May 89. Philippines: Atok, Benguet.

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Metarhizium anisopliae Metarhizium anisopliae var. anisopliae

2808 GW Riethmacher (B16m). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 22 May 89. Philippines: Atimonan, Quezon.

2809 GW Riethmacher (B17b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 5 Jun 89. Philippines: La Trinidad, Benguet.

2941 [CP 272] SP Wraight ← DR Sosa Gomez. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 8 Nov 88. Brazil: CNPAF, Goiânia, Goiás.

2949 [CP 277] SP Wraight ← CA da Silva, EC de Moura, GS de Sá and SM dos Santos. [Isoptera]. 19 Jan 89. Brazil: CNPAF, Goiânia, Goiás.

2951 [CP 285] SP Wraight ← C Czepak. [Isoptera]. 9 Nov 89. Brazil: CNPAF, Goiânia, Goiás.

2981 T Searle (CWMA). Larva, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.

2982 T Searle (PAMA). External parasite on *Phyllophaga anxia* [Coleoptera: Scarabaeidae] larva. 1987. Canada: Québec.

3043 WE Jones (FLS). Soil from lettuce crop. Mar 90. USA: Hawaii, Hawaii.

3044 WE Jones (WSP). Soil from sweet potato crop. Mar 90. USA: Oahu, Hawaii.

3045 WE Jones (FST). *Coptotermes formosanus* [Isoptera: Rhinotermitidae]. May 90. USA: Oahu, Hawaii.

3056 [MAF F11] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: Canterbury Plains, South Island.

3057 [MAF F12] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: South Island.

3064 [MAF F25] T Glare. Larva, [Lepidoptera: Crambidae]. Rec'd Oct 90. New Zealand: Christchurch, South Island.

3388 I Majchrowicz (3a). *Tribolium castaneum* [Coleoptera: Tenebrionidae] on asparagus. 16 Jul 91. USA: Orchard Farm, Yakima, Washington.

3389 I Majchrowicz (T-11-4). *Tribolium castaneum* [Coleoptera: Tenebrionidae] on apple. 16 Jul 91. USA: Seto Farm, Granger, Washington.

3540 M Brownbridge (B-2). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 29 Nov 91. USA: oak stand, Leddy Park, Chittenden County, Vermont.

3541 M Brownbridge (B-5). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 27 Nov 91. USA: Motyka's sugar maple stand, Orange County, Vermont.

3542 M Brownbridge (B-18). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 27 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3544 M Brownbridge (B-35). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 19 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3565 M Brownbridge (B-36). Rec'd 10 Jan 92.

3603 IMI (152222) ← Deshpande. *Myllocerus discolor* [Coleoptera: Curculionidae]. Rec'd 26 Feb 92. India: Mudigere.

3604 IMI (298059). *Scapanes australis* [Coleoptera: Scarabaeidae]. Rec'd 26 Feb 92. Papua New Guinea.

3605 IMI (I90-574). *Acrotylus* sp. Rec'd 26 Feb 92. Pakistan.

3608 [ARSEF 2575] IMI (I91-613) ← RJ St. Leger (ME-1) ← Tate and Lyle Ltd (Batch No. B1830). *Circulio caryaiae* [Coleoptera: Curculionidae]. Rec'd 26 Feb 92. USA.

3609 IMI (I91-614). *Patanga succincta*. Rec'd 26 Feb 92. Thailand.

3610 IMI (I91-625). *Pseudosphingonotus savignyi*. Rec'd 26 Feb 92. Oman.

3611 IMI (I91-633). [Orthoptera: Gryllidae]. Rec'd 26 Feb 92. Oman.

3619 IMI (I91-676). *Oryza multidentata*. Rec'd 26 Feb 92. Pakistan.

3621 IMI (299982). *Aenolamia varia* [Homoptera: Cercopidae]. Rec'd 26 Feb 92. Trinidad and Tobago.

3713 RA LeBrun ← J Hanula (C-5). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 3 Jun 91. USA: Clinton, Connecticut.

3720 RA LeBrun ← J Hanula. Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 20 May 91. USA: Windsor, Connecticut.

3721 RA LeBrun ← J Hanula. Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 3 Jun 91. USA: Clinton, Connecticut.

Metarhizium anisopliae var. anisopliae (Metschnikoff) Sorokin [Hyphomycetes]

538 DW Roberts. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. 20 Aug 80. Thailand.

925 [ATCC 60335; EPABA E-9(ESMC); QEC 409.0] DW Roberts ← J Ventura. *Deois flavopicta* [Homoptera: Cercopidae]. 22 Aug 78. Brazil: Espírito Santo.

1448 [CNPAF 83-12-27; CP 122] E Ferreira. *Scaptore castanea* [Hemiptera: Cydnidae]. 27 Dec 83. Brazil: Goiatuba, Goiás.

1449 [CNPAF 84-1-26; CP 123] BP Magalhães. *Deois incompleta* [Homoptera: Cercopidae]. 26 Jan 84. Brazil: Altamira, Pará.

1882 [CP 171] DW Roberts ← C Czepak. *Tibraca limbaticornis* [Hemiptera: Pentatomidae]. 3 Jan 85. Brazil: CNPAF, Goiânia, Goiás.

1883 [CP 172] DW Roberts ← JFS Martins. *Tibraca limbaticornis* [Hemiptera: Pentatomidae]. 11 Jan 85. Brazil: CNPAF, Goiânia, Goiás.

1885 [CP 174] DW Roberts ← SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 23 Apr 85. Brazil: CNPAF, Goiânia, Goiás.

1894 [ATCC 60336; EPABA A-4] DW Roberts ← E Matta. *Mahanarva posticata* [Homoptera: Cercopidae]. Acc'd 11 Jun 85. Brazil: Salvador, Bahia.

1952 [CNPAF 85-7-21; CP 177] SM dos Santos. ?*Cirtone-mus* sp. [Hemiptera: Cydnidae]. 27 Jul 85. Brazil: Goiânia, Goiás.

1958 [CNPAF 85-7-24-1; CP 184] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.

1968 DR Smitley. *Strigoderma arboricola* [Coleoptera: Scarabaeidae]. Aug 85. USA: East Lansing, Michigan.

1970 [CNPAF 82-12-01; CP 170] C Czepak. *Deois flavopicta* [Homoptera: Cercopidae]. 1 Dec 84. Brazil: CNPAF, Goiânia, Goiás.

1989 [ARSEF 1452 (deaccessioned); CNPAF 53; CP 126] F Moscardi. *Sternechus subsignatus* [Coleoptera: Curculionidae]. 27 Mar 84. Brazil: Soybean Center, Londrina, Paraná.

2080 DG Holdom ← H Soeharto. *Nilaparvata lugens* [Homoptera: Delphacidae]. 1985. Indonesia: Sukamundi, Jawa Barat, Java.

2105 DG Holdom (130286-3). ?*Hydrellia* sp. [Diptera: Ephydriidae]. 13 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2106 DG Holdom (100286-3). *Nephrotettix virescens* [Homoptera: Cicadellidae]. 10 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2134 T Searle (E). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.

2135 T Searle (F). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.

2136 T Searle (K). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 85. Canada.

2137 T Searle (Q). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.

2138 T Searle (W). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.

2139 T Searle (Z). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Aug 85. Canada: Southern Québec.

2140 T Searle (N). Larva, [Lepidoptera: Noctuidae]. Jul 85. Canada: Southern Québec.

2156 BN Muthappa (PNG 12711). Adult, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.

2162 BN Muthappa (PNG 12721). Larva, [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.

2163 BN Muthappa (PNG 12722). Larva, [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.

2165 BN Muthappa (PNG 12724). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.

2166 BN Muthappa (PNG 12726). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.

2167 BN Muthappa (PNG 12727). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.

2223 KJ Marschall. *Brontispa longissima* from artificial production. Jun 86. Western Samoa: Vaoala, Apia.

2230 MC Rombach (220786-1). 22 Jul 86.

2231 K Narayanan (7). *Zygogramma bicolorata* [Coleoptera: Chrysomelidae]. Rec'd 27 Aug 86. India.

2424 DG Holdom (080287-1). Larva, [Lepidoptera]. 8 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2469 JK Liebherr. Larva, [Coleoptera: Carabidae]. 24 Aug 87. Mexico: 10.5 km S of Amecameca, Tepetlixpa, Mexico.

2514 [CP 236B] SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Oct 86. Brazil: CNPAF, Goiânia, Goiás.

2742 GW Riethmacher (B4T8). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.

2974 C López Lastra. Adult, *Aedes crinifer* [Diptera: Culicidae]. 30 Nov 88. Argentina: Los Talas, Berisso, Buenos Aires.

3108 SV Krueger (MaEC1). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3127 [IMI 168777ii] C Prior ← M Tulloch. *Schistocerca gregaria* [Orthoptera: Acrididae]. 1974. Lab. manipulation.

3146 INRA (Ma-70). *Anagyrus* sp. [Hymenoptera: Encyrtidae]. Aug 72. Mexico.

3147 INRA (Ma-152) ← G Riba. [Homoptera: Cercopidae]. Dec 81. Brazil.

3148 INRA (Ma-181) ← A Caudal. *Haphochelus marginalis* [Coleoptera]. May 83. France: Réunion.

3180 GW Riethmacher (B34). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 1 Mar 90. Philippines: Louisiana, Laguna.

3187 GW Riethmacher (B43a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 3 May 90. Philippines: La Trinidad, Benguet.

3190 GW Riethmacher (B44a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 17 May 90. Philippines: La Trinidad, Benguet.

3193 GW Riethmacher (B45b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 28 May 90. Philippines: Villasis, Pangasinan.

3194 GW Riethmacher (B47a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Jun 90. Philippines: Villasis, Pangasinan.

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3196 GW Riethmacher (B48). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 13 Jun 90. Philippines: Baguio City, Benguet.

3210 RC Rajak (49). [Coleoptera]. Rec'd 3 Jun 91. India.

3211 SV Krueger (MaEC2). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3290 J Gutierrez Samperio (6) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1988. Mexico: Colima.

3291 J Gutierrez Samperio (7) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.

3292 J Gutierrez Samperio (8) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.

3293 J Gutierrez Samperio (9) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.

3294 J Gutierrez Samperio (10) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1989. Mexico: Colima.

3295 J Gutierrez Samperio (11) ← ERD Reyes. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on soybeans. 1987. Mexico: Tamaulipas.

3297 J Gutierrez Samperio (13) ← ERD Reyes. *Boophilus* sp. [Acar: Ixodidae] on cow. 1987. Mexico: Colima.

3305 J Gutierrez Samperio (21) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.

3306 J Gutierrez Samperio (22) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.

3307 J Gutierrez Samperio (23) ← ERD Reyes. [Homoptera: Cercopidae] on sugar cane. 1990. Mexico: Colima.

3308 J Gutierrez Samperio (24) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.

3329 DW Roberts ← AS Martins (A-1). 3rd instar larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Spring 88. Portugal: Terceira Island, Azores.

3330 SV Krueger (MaJB1). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3331 SV Krueger (MaJB2). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3332 SV Krueger (MaJB3). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3333 SV Krueger (MaJB6). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3334 SV Krueger (MaJB7). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3335 SV Krueger (MaJB8). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

Metarhizium anisopliae var. *anisopliae* *Metarhizium anisopliae* var. *majus*

3336 SV Krueger (MaJB9). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3337 SV Krueger (MaJB10). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3338 SV Krueger (MaJB11). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3339 SV Krueger (MaJB12). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3340 SV Krueger (MaJB13). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.

3479 CENARGEN (CG 339). [Coleoptera: Scarabaeidae]. 1991. Brazil: Brasília, Federal District.

***Metarhizium anisopliae* var. *majus* (Johnston)**
Tulloch
[Hymomycetes]

297 KJ Marschall. Larva, *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. 22 Nov 78. Western Samoa: Apia.

298 RS Soper. Larva, *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. Acc'd 22 Feb 79. Western Samoa: Apia.

473 [DAR 28052; QEC 429.0] J Walker ← G Johnson. Soil under *Eucalyptus* sp. Jan 73. Australia: Canberra, Aust. Capital Territory.

978 [GCRI 148-82] RA Hall ← A Vey. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 83. France.

988 J Aoki (Met. 1). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.

1015 J Aoki (Met. 4) ← T Kushida. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Hachioji, Tokyo Prefecture.

1092 DW Roberts ← K Kawakami (621). Soil. 22 Aug 83. Japan.

1093 DW Roberts ← K Kawakami (773). Soil. 1982. Japan.

1383 Acc'd 26 Jun 84.

1858 DW Roberts (Pol-42). [Coleoptera: Scarabaeidae]. Acc'd 19 Mar 85. Poland.

1859 DW Roberts (Pol-32). [Coleoptera: Scarabaeidae]. Acc'd 19 Mar 85. Poland.

1914 MC Rombach. Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Apr 85. Philippines: nr. Tiaong Experimental Station, Quezon.

1946 MC Rombach (MMQ). *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Acc'd 11 Sep 85. Philippines: Tiaong Experimental Station, Quezon.

2151 MC Rombach (170386-1). Larva, *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. 17 Mar 86. Indonesia: Ciamis, Jawa Barat, Java.

3145 INRA (Ma-51) ← A Gandard. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Jan 71. France: La Minière.

Metarhizium flavoviride Gams & Rozsypal
[Hyphomycetes]

1184 [ARSEF 2024; CBS 700.74; INRA Mf-88] TJ Poprawski ← P Ferron. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jan 74. France: Brittany, Morbihan. CULTURE EX TYPE.

2023 CBS (544.81) ← HC Evans. [Orthoptera: Acrididae]. 1981. Ecuador: Santa Fe Island, Galapagos Islands. CULTURE EX TYPE.

2024 [ARSEF 1184; INRA Mf-88] CBS (700.74) ← P Ferron. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Acc'd 23 Oct 85. France: Brittany, Morbihan. CULTURE EX TYPE.

2025 CBS (125.65) ← W Gams and J Rozsypal. *Brassica oleracea* (agricultural soil). 1963. Germany: Kiel-Kitzeberg. CULTURE EX TYPE.

2026 CBS (473.73) ← W Gams and J Rozsypal ← JW Veenbaas-Rijks. Field soil. 1973. Netherlands. CULTURE EX TYPE.

2133 [CBS 218.56; IMI 170146] ATCC (32969) ← J Rozsypal. Larvae & pupae, *Ceutorhynchus macula-alba* [Coleoptera: Curculionidae]. 1956. Czechoslovakia. CULTURE EX TYPE.

3391 [IIBC I88-377; IMI 324673] *Zonocerus elegans* [Orthoptera: Pyrgomorphidae]. Rec'd 17 Sep 91. Tanzania.

3606 IMI (I91-609). *Zonocerus variegatus* [Orthoptera: Pyrgomorphidae]. Rec'd 26 Feb 92. Benin.

Metarhizium flavoviride var. *minus* Rombach,
Humber & Roberts
[Hyphomycetes]

1099 DW Roberts (A8). *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1271 DW Roberts (S). *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1272 DW Roberts (Bq). Biotype 2, *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1273 DW Roberts (T2). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1274 DW Roberts (BPH-5). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1275 DW Roberts (BPH-8). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1276 DW Roberts (IV). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: Plant Breeding, IRRI, Los Baños, Manila.

1277 DW Roberts (I). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Breeding, IRRI, Los Baños, Manila.

1279 DW Roberts (IX). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Plot, IRRI, Los Baños, Manila.

1283 DW Roberts (VII). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Field, IRRI, Los Baños, Manila.

1287 DW Roberts (BPH-10). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1288 DW Roberts ((i)I). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1289 DW Roberts (BPH-7). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1291 DW Roberts (A1). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1292 DW Roberts (C). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1293 DW Roberts (H). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1294 [ARSEF ?1295] DW Roberts (BPH-3[?]). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1295 [ARSEF ?1294] DW Roberts (BPH-3[?]). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1296 DW Roberts (BPH-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1297 DW Roberts (A9). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1301 DW Roberts (VI). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Plot, IRRI, Los Baños, Manila.

1302 DW Roberts (5A). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1303 DW Roberts (A10). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.

1305 DW Roberts (R). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.

1546 MC Rombach (Lib.11) ← RM Aguda. *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 1983. Philippines: Bicol region.

1547 MC Rombach (Lib.16) ← RM Aguda. *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 1983. Philippines: Bicol region.

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Metarhizium flavoviride var. *minus* *Myriodontium keratinophilum*

1763 MC Rombach ← T Ho (Sol-31). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1764 MC Rombach ← T Ho (Sol-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1765 MC Rombach ← T Ho (Sol-28). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1766 MC Rombach ← T Ho (Sol-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1767 MC Rombach ← T Ho (Sol-17). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1768 MC Rombach ← T Ho (Sol-7). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1769 MC Rombach ← T Ho (Sol-14). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1770 MC Rombach ← T Ho (Sol-30). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1771 MC Rombach ← T Ho (Sol-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1772 MC Rombach ← T Ho (Sol-11). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1773 MC Rombach ← T Ho (Sol-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.

1945 MC Rombach (MALBIRRI). *Nephrotettix virescens* [Homoptera: Cicadellidae]. Acc'd 11 Sep 85. Philippines: IRRI, Los Baños, Manila.

2037 MC Rombach (051185-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Nov 85. Philippines: IRRI, Los Baños, Manila. CULTURE EX TYPE.

2339 MC Rombach (120186-2). [Homoptera: Cicadellidae] on rice. 12 Jan 86. Philippines: Palawan.

2948 [CP 271] SP Wraight ← LG Leite. [Homoptera: Cicadellidae]. 30 Apr 89. Brazil: Campinas, São Paulo.

3341 [IMI 330189] C Prior. *Ornithacris cavroisi* [Orthoptera: Acrididae]. Rec'd 17 Jun 91. Niger: ICRISAT, nr. Niamey. Single spore isolate.

Mixed culture

The two members in these mixed cultures have not been successfully separated.

2738 GW Riethmacher (B4). *Corcyra cephalonica* [Lepidoptera: Pyralidae] after soil passage. 17 Jan 89. Philippines: La Trinidad, Benguet. Contains *Paecilomyces fumosoroseus*.

2740 GW Riethmacher (T6.1). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 22 Dec 88. Philippines: La Trinidad, Benguet. Contains *Verticillium* sp. & *Fusarium* sp.

3178 GW Riethmacher (B31). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Feb 90. Philippines: La Trinidad, Benguet.

3182 GW Riethmacher (B37b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 12 Mar 90. Philippines: Plaridel, Quezon. Contains *Verticillium* sp. and *Penicillium* sp.

3472 CENARGEN (CG 307). Soil. 1990. Brazil: Goiás. Contains *B. bassiana* and *P. ?farinosus*.

Monacrosporium cionopagum (Drechsler) Subramanian [Hymomycetes]

3349 BA Jaffee (G20) ← J Gaspard. Phylum Nemata, Class Secernentia. Rec'd 9 Sep 91. USA: California.

Monacrosporium ellipsosporum (Grove) Cooke & Dickinson [Hymomycetes]

3348 BA Jaffee ← J Gaspard. Phylum Nemata, Class Secernentia. Rec'd 9 Sep 91. USA: California.

3723 KT Hodge (10). decorticated wood. Rec'd 18 May 92.

3731 BA Jaffee (MK100a). Rec'd 1 Jun 92. USA: Merced County, California.

Mortierella sp.

[Zygomycetes: Mucorales]

2063 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Mortierella clausenii (Linnemayer) [Zygomycetes: Mucorales]

2062 [ATCC 64864; CBS 790.85] GC Carroll (I). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Mortierella hyalina (Harz.)

[Zygomycetes: Mucorales]

2061 [ATCC 64258] GC Carroll (RSRS-0/62). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Myriodontium keratinophilum Samson & Polonelli [Hymomycetes]

368 [ARSEF 386] BA Federici ← PS Tsao. *Porcellio* sp. [Isoptera: Oniscoidea]. USA: Riverside, California.

386 [ARSEF 368] BA Federici ← PS Tsao. *Porcellio* sp. [Isoptera: Oniscoidea]. USA: Riverside, California.

Nematoctonus sp.
[Basidiomycetes]

3351 P Timper ← BA Jaffee. Phylum Nemata, Class Secernentia. Rec'd 19 Jun 91. USA: California.
3352 P Timper. Phylum Nemata, Class Secernentia. May 89. USA: Solano County, California.

Neozygites sp.

[Zygomycetes: Entomophthorales]

This culture is provided as hyphal bodies in a liquid tissue culture medium. Spores may be induced by plating hyphal bodies on solid media. Taxonomic criteria separating *Neozygites* species from mites are too poorly understood to allow specific identifications.

662 RA Humber ← DR Smitley. *Tetranychus urticae* [Acari: Tetranychidae]. 19 Oct 81. USA: Raleigh, North Carolina.

Neozygites tetranychii Weiser ex Humber, sp. nov.
[Zygomycetes: Entomophthorales]

This culture is provided as hyphal bodies in a liquid tissue culture medium. Spores may be induced by plating hyphal bodies on solid media. Identification of this species is provisional because of correspondence with the source of the strain and the original description of the species.

2677 J Weiser. *Tetranychus althaeae* [Acari: Tetranychidae]. 8 Nov 88. Czechoslovakia: Dvory n. Zitavou.

Nomuraea sp.

[Hymenomycetes]

2413 K Narayanan (15). *Heliothis armigera* [Lepidoptera: Noctuidae]. Acc'd 6 May 87. India.

Nomuraea anemonoides Hocking

[Hymenomycetes]

2467 [ATCC 34948; IMI 214110; JI Pitt FRR 1665] UAMH (5301) ← AD Hocking. Soil. 1974. Australia: Blue Mts., New South Wales. CULTURE EX TYPE.

Nomuraea atypicola (Yasuda) Samson
[Hymenomycetes]

1904 MC Rombach (7). [Araneida: ?Argiopidae] on underside of cacao leaves. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Nomuraea rileyi (Farlow) Samson

[Hymenomycetes]

Early vegetative development of cultures on solid media usually occurs in mucoid colonies of fusoid yeast-like cells: mycelial development should begin after several days. Most strains are observed to sporulate most abundantly on Sabouraud maltose agar + 1% yeast extract.

135 JV Bell. [Lepidoptera: Noctuidae]. USA: Stoneville, Mississippi.
323 RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 14 Feb 79. Australia: Arriga, Queensland.
358 RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 26 Feb 79. Australia: Queensland.

'380 [FPMI 753] RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 26 Feb 79. Australia: Queensland.
481 RS Soper (10). *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
482 RS Soper. *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
483 RS Soper. *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
539 DW Roberts ← M Panyarjun. *Spodoptera exigua* [Lepidoptera: Noctuidae]. 26 Aug 80. Thailand.
558 RS Soper (8133-3). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Sigere, Pangkajene, Sulawesi Selatan, Celebes.
711 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. Fall 81. PR China: Hangzhou, Zhejiang.
762 TA Coudron ← B Puttler. *Plathypena scabra* [Lepidoptera: Noctuidae] on alfalfa. 2 Jul 82. USA: Columbia, Missouri.
935 [CNPAF 83-2-17-01; CP 74] RA Daoust ← E Ferreira. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 17 Feb 83. Brazil: CNPAF, Goiânia, Goiás.
936 [CNPAF 83-02-18-01; CP 75] RA Daoust ← SM dos Santos. Larva, [Lepidoptera]. 18 Feb 83. Brazil: CNPAF, Goiânia, Goiás.
1014 J Aoki (Nom. 2). *Prodenia litura* [Lepidoptera: Noctuidae]. Oct 78. Japan: Fuchu, Tokyo Prefecture.
1047 [FPMI 754] J Aoki (Nom. 3). *Plusia* sp. [Lepidoptera: Noctuidae]. Jan 80. Japan: Fuchu, Tokyo Prefecture.
1670 G Riba (NR-11). Acc'd 29 Oct 84. France.
1671 G Riba (NR-5). Acc'd 29 Oct 84. France.
1756 MC Rombach ← BM Shepard (NrMin-14). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1757 MC Rombach ← BM Shepard (NrMin-19). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1758 MC Rombach ← BM Shepard (NrMin-1). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1759 MC Rombach ← BM Shepard (NrMin-5). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1760 MC Rombach ← BM Shepard (NrMin-23). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1761 MC Rombach (Nr-B). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Aug 84. Philippines: insectary, IRRI, Los Baños, Manila.
1762 MC Rombach ← G Barrion (Nr-BS). *Mocis frugalis* [Lepidoptera: Noctuidae] on rice. Nov 84. Philippines: Bangued, Abra.

1879 DW Roberts (090485-3). Larva, [Lepidoptera] on rice. 9 Apr 85. Solomon Islands: nr. Honiara, Guadalcanal.

1893 MC Rombach (3). Larva, [Lepidoptera] on rice. Acc'd 10 Jun 85. Solomon Islands: nr. Metapona, Guadalcanal.

1950 [CNPAF 85-06-14; CP 175] JMG Ferraz. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 14 Jun 85. Brazil: Bragança Paulista, Pará.

1972 [CNPAF 85-7-24-5; CP 192] JC Lord and BP Magalhães. *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.

2013 CIRPON ← DR Sosa Gomez. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 1985. Argentina: Tucumán.

2174 MC Rombach (130586-14). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 13 May 86. Philippines: nr. Baybay, Leyte.

2201 LC Piazza ← L da Silva (A285). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Mar 84. Brazil: Guaiba, Rio Grande do Sul.

2202 LC Piazza ← NM de Barros (A485). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 24 Mar 85. Brazil: Vacaria, Rio Grande do Sul.

2203 LC Piazza (A86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 13 Mar 86. Brazil: Vacaria, Rio Grande do Sul.

2204 LC Piazza ← FM Ellwanger (B86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 12 Mar 86. Brazil: Ijuí, Rio Grande do Sul.

2205 LC Piazza ← L Baloch (C86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 10 Mar 86. Brazil: Sarandi, Rio Grande do Sul.

2206 LC Piazza ← DN Gassen (D86). *Rachiplusia ou* [Lepidoptera: Noctuidae]. 8 May 86. Brazil: Passo Fundo, Rio Grande do Sul.

2207 LC Piazza ← DN Gassen (E86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Apr 86. Brazil: Santa Rosa, Rio Grande do Sul.

2345 [ARSEF 2390 (never frozen)] MC Rombach (111286-2). *Naranga* sp. [Lepidoptera: Noctuidae] on rice. 11 Dec 86. Indonesia: nr. Klaten, Jawa Tengah, Java.

2395 MC Rombach (121186-1). *Rivula atimeta* [Lepidoptera: Noctuidae]. 12 Nov 86. Philippines: IRRI farm, Los Baños, Manila.

2465 TJ Poprawski (8708) ← AJ Nasca (Nr-IY3). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 1986. Argentina: Santiago del Estero.

2466 TJ Poprawski (8709) ← AJ Nasca (Nr-T2). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 1985. Argentina: Tucumán.

2492 SR Sánchez Peña. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Sep 86. Mexico: Estacion Manuel, Tamaulipas.

3301 J Gutierrez Samperio (17) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.

Paecilomyces sp.
[Hyphomycetes]

309 DW Roberts ← FL Briggs. *Epiphyas postvittana* [Lepidoptera: Tortricidae]. Acc'd Mar 79. New Zealand.

385 WG Yendol. Rec'd 8 Aug 79. PR China: North Bridges Peoples' Commune, Shanghai, Kiangsu.

680 DW Roberts (101081-6). *Recilia dorsalis* [Homoptera: Cicadellidae]. 10 Oct 81. PR China: Jansui, Jiangsu.

741 [CNPAF 82-1-15-06; CP 19] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Jan 82. Brazil: CNPAF, Goiânia, Goiás.

971 [GCRI 50-81] RA Hall ← J Fargues. Acc'd 17 Oct 83. France.

1008 J Aoki (Nom. 1) ← K Katagiri ← T Kushida. *Sesamia inferens* [Lepidoptera: Noctuidae]. Dec 68. Japan: Hachioji, Tokyo Prefecture.

2350 [ARSEF 2378] MC Rombach (131286-6). Pupa, [Diptera] on *Croton* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.

2354 [ARSEF 2377 (never frozen)] MC Rombach (201286-6). [Araneida]. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2378 [ARSEF 2350] MC Rombach (131286-6). Pupa, [Diptera] on *Croton* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.

2546 SR Sánchez Peña. *Spodoptera* sp. [Lepidoptera: Noctuidae]. Acc'd 29 Feb 88.

2613 SB Alves (715). *Brassolis saphorae* [Lepidoptera: Brassolidae]. Apr 88. Brazil: Moju, Pará.

2614 SB Alves (716). *Anteotricha* sp. [Lepidoptera: Oecophoridae]. Apr 88. Brazil: Moju, Pará.

2615 SB Alves (717). *Anteotricha* sp. [Lepidoptera: Oecophoridae]. Apr 88. Brazil: Moju, Pará.

2616 SB Alves (718). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 88. Brazil: Moju, Pará.

2617 SB Alves (719). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 88. Brazil: Moju, Pará.

2618 SB Alves (720). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 88. Brazil: Moju, Pará.

2620 SB Alves (758). *Brassolis saphorae* [Lepidoptera: Brassolidae]. Jun 88. Brazil: Aracajú, Sergipe.

3101 L Loch (CB-75). *Nezara viridula* [Hemiptera: Pentatomidae]. 1986. Brazil: Piracicaba, São Paulo.

3545 M Brownbridge (B-38). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 19 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3566 M Brownbridge (R-48). Rec'd 10 Jan 92.

Paecilomyces amoenoroseus (Hennings) Samson
[Hyphomycetes]

2078 [CP 196] JC Lord and BP Magalhães. *Deois flavopicta* [Homoptera: Cercopidae]. 1985. Brazil: Hidrolândia, Goiás.

2215 [CNPAF 86-06-05-2; CP 211] DW Roberts ← PMOJ Neves. *Tibraca limbaticollis* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2958 CENARGEN (CG 162). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.

2959 CENARGEN (CG 163). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.

2960 CENARGEN (CG 164). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.

3192 GW Riethmacher (B45a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 28 May 90. Philippines: Villasis, Pangasinan.

Paecilomyces andoi Shimazu & Humber (sp. nov., unpublished)
[Hyphomycetes]

1684 M Shimazu (F-430(4)) ← S Ando. *Resseliella odai* [Diptera: Cecidomyiidae]. 6 Dec 82. Japan: Nakatsue, Oita Prefecture. CULTURE EX TYPE.

Paecilomyces canadensis (Vuillemin) Brown & Smith
[Hyphomycetes]

This species has been treated as a synonym of *Paecilomyces farinosus*.

984 [FPMI 757] J Aoki (Paec. 6) ← K Katagiri ← T Kushida. *Heptophylla picea* [Coleoptera: Scarabaeidae]. Feb 72. Japan: Hachioji, Tokyo Prefecture.

990 [FPMI 758] J Aoki (Paec. 7) ← K Katagiri ← T Kushida. *Gastropacha orientalis* [Lepidoptera: Lasiocampidae]. Jul 69. Japan: Hachioji, Tokyo Prefecture.

Paecilomyces farinosus (Holm ex SF Gray) Brown & Smith
[Hyphomycetes]

3 [ATCC 24319] PW Schaefer. 3rd instar larva, *Mallacosoma americanum* [Lepidoptera: Lasiocampidae]. 6 Jun 72. USA: Chapin Beach, Dennis, Massachusetts.

20 RS Soper ← I Majchrowicz (1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 Oct 72. USA: Harrisburg, Pennsylvania.

38 *Leucoma salicis* [Lepidoptera: Lymantriidae]. 6 Dec 74.

55 India.

294 "MLC" pupa. 25 Jun 76.

475 C Bajan. Rec'd May 80. Poland.

476 C Bajan. Rec'd May 80. Poland.

531 DW Roberts (82180-13b). [Hemiptera: Pentatomidae]. 21 Aug 80. Malaysia.

648 [FPMI 759] RG Lawlor. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Sep 81. USA: Michigan Hollow, West Danby, New York.

697 [FPMI 760] C Glenister. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jan 82. USA: Twin Glens, Tompkins County, New York.

763 PM Chang. *Scotinophara coarctata* [Hemiptera: Pentatomidae]. 3 Feb 82. Malaysia: Rice Research Center, Mardi, Bumbong Lima, Icepala Batas, Wellesley Province.

799 DA Rodriguez Sierra ← A López. Pupa, *Premnotrypes vorax* [Coleoptera: Curculionidae]. Nov 81. Colombia: Tibaitata, Mosquera, Nariño.

975 [GCRI 112-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. Acc'd 17 Oct 83. England.

981 [GCRI 52-81] RA Hall. [Lepidoptera: Nymphalidae]. Acc'd 17 Oct 83. England.

1042 J Aoki (Cordy. 1). *Quadicalcarifera punctatella* [Lepidoptera: Notodontidae]. Aug 82. Japan: Morioka City, Iwate Prefecture.

1043 J Aoki (Paec. 1). *Pyrrhalta fuscipennis* [Coleoptera: Chrysomelidae]. May 73. Japan: Towada City, Aomori Prefecture.

1058 [CNPS 30B] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.

1065 [CNPS 26] F Moscardi. Pupa, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.

1108 KV Deseō (27) ← Menarini. Larva, *Conopia myopaeformis* [Lepidoptera: Sesiidae]. Apr 82. Italy: Ferrara, Emilia-Romagna.

1111 KV Deseō (32A) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 82. Italy: Modena, Emilia-Romagna.

1225 [INRA Pf-46] TJ Poprawski. *Laspeyresia medicaginis* [Lepidoptera: Tortricidae]. Apr 81. France: Lusignan, Vienne.

1348 S Balazy (1584c). Pupa, [Diptera: Tachinidae]. 25 Sep 83. Poland: Wielkopolski National Park.

1349 S Balazy (1584e). Pupa, [Diptera: Tachinidae]. 25 Sep 83. Poland: Wielkopolski National Park.

1354 S Balazy (1594a). Rec'd 19 May 84. Poland.

1355 S Balazy (1594b). Rec'd 19 May 84. Poland.

1358 S Balazy (1595e). Rec'd 19 May 84. Poland.

1507 I Majchrowicz (61) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1508 I Majchrowicz (76) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1851 [PFRC-FIDS 38-131] HS Whitney (R631) ← P Koot. Cocoon, *Pristiphora erichsonii* [Hymenoptera: Tenthredinidae]. 23 Oct 84. Canada: Morrissey, Fernie, British Columbia.

1939 L Turlington (West Borax 1, colony B). Sentinel larva, *Aedes sierrensis* [Diptera: Culicidae]. 28 Jun 85. USA: nr. Clearlake, California.

1957 [CNPAF 85-7-22-1; CP 182] JC Lord and BP Magalhães. *Lagria vilosa* [Coleoptera: Lagriidae]. 22 Jul 85. Brazil: União dos Palmares, Alagoas.

2057 [NRRL A-27473] GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

2131 AE Hajek. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Mar 86. USA: Tuckahoe, Maryland.

2155 BN Muthappa (PNG 12710). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

2175 MC Rombach (130586-3). *Heteropsylla incisa* [Homoptera: Psyllidae]. 13 May 86. Philippines: VISCA demonstration farm, nr. Baybay, Leyte.

2269 BT Forschler (RF-1). Larva, *Prionoxystus robiniae* [Lepidoptera: Cossidae]. Oct 85. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.

2344 [ARSEF 2375 (never frozen)] MC Rombach (221086-1). *Rivula atimeta* [Lepidoptera: Noctuidae]. 22 Oct 86. Philippines: IRRI farm, Los Baños, Manila.

2355 [ARSEF 2379 (never frozen)] MC Rombach (201286-7). [Coleoptera]. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2564 AE Hajek. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Mar 88. USA: Canadice Lake, New York.

2576 Acc'd 26 Jul 88.

2577 Acc'd 26 Jul 88.

2578 Acc'd 26 Jul 88.

2658 DG Boucias. *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. Acc'd Dec 88. USA: greenhouse, Gainesville, Florida.

2724 GW Riethmacher (B10M). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 2 Mar 89. Philippines: La Trinidad, Benguet.

2726 GW Riethmacher (B13B). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 11 Mar 89. Philippines: Atok, Benguet.

2734 GW Riethmacher (M1). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 28 Dec 88. Philippines: La Trinidad, Benguet.

2807 GW Riethmacher (B15p). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 14 May 89. Philippines: Pagbilao, Quezon.

2835 AE Hajek ← K Tatman (MD109#3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 89. USA: Baltimore County, Maryland.

2937 EcoScience Corporation (32-51) ← LJ Dapsis. *Otiorynchus sulcatus* [Coleoptera: Curculionidae]. Aug 89. USA: Oregon.

2954 [Yoder Bros. Inc F2-28] BM Cawley. *Aleurocanthus woglumi* [Homoptera: Aleyrodidae]. 30 Oct 89. USA: Florida.

2971 C López Lastra. Adult, *Aedes albifasciatus* [Diptera: Culicidae]. 13 Apr 87. Argentina: Punta Lara, Buenos Aires.

2973 C López Lastra. Larva, *Cylcocephala signaticolis* [Coleoptera: Scarabaeidae]. 10 Sep 86. Argentina: Salto, Buenos Aires.

2975 C López Lastra. Soil. 30 Jan 86. Antarctica: Base Primavera.

3017 SB Krasnoff. *Pyrrharctia isabella* [Lepidoptera: Arctiidae]. 5 Jul 90. USA: Troy Road, Ithaca, New York.

3152 KT Hodge. Pupa, [Lepidoptera]. 10 Oct 91. USA: Lost Gorge, Tompkins County, New York.

3183 GW Riethmacher (B38). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 7 Apr 90. Philippines: Atimonan, Quezon.

3184 GW Riethmacher (B39). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 11 Apr 90. Philippines: Sariaya, Quezon.

3185 GW Riethmacher (B40). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 23 Apr 90. Philippines: Lopez, Quezon.

3186 GW Riethmacher (B41). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 25 Apr 90. Philippines: Padre Burgos, Quezon.

3191 GW Riethmacher (B44b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 17 May 90. Philippines: La Trinidad, Benguet.

3221 AE Hajek. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 8 Feb 91. USA: Luzerne County, Pennsylvania.

3461 SV Krueger (549). Soil. Jun 91. USA: Smith Forest, Trumansburg, New York.

3490 AE Hajek (1b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 29 May 91. USA: nr. Crossroads, Albemarle County, Virginia.

3491 AE Hajek (4a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: nr. Cool Spring, Mercer County, Pennsylvania.

3492 AE Hajek (9b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: Poplar Hill, Prince Georges County, Maryland.

3493 AE Hajek (18b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lyn.antriidae]. 3 Jun 91. USA: Union Springs, Rockingham County, Virginia.

3494 AE Hajek (21a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 30 May 91. USA: Hunting Creek, Bedford County, Virginia.

3495 AE Hajek (26a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 91. USA: Hawes Run, Pendleton County, West Virginia.

3496 AE Hajek (32c). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Holloway Draft, Augusta County, Virginia.

3497 AE Hajek (36a). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Big Mary's Creek, Rockbridge County, Virginia.

3498 AE Hajek (37c). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: Piscataway, Maryland.

3499 AE Hajek (Red b (40)). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: Shenango River Reservoir, Mercer County, Pennsylvania.

3500 AE Hajek (47b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 5 Jun 91. USA: Belle Acre, Allegheny County, Pennsylvania.

3501 AE Hajek (49b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 5 Jun 91. USA: Lovington Spring, Nelson County, Virginia.

3502 AE Hajek (52b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Piney River, Virginia.

3503 AE Hajek (53a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Hog Camp, Amherst County, Virginia.

3504 AE Hajek (54b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: White Rock Trail, Augusta County, Virginia.

3505 AE Hajek (57b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 91. USA: Wiggins Spring, Amherst County, Virginia.

3506 AE Hajek (62a). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Brady Run, Beaver County, Pennsylvania.

3507 AE Hajek (64a). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 91. USA: Accokeek, Maryland.

3508 AE Hajek (68c). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: nr. Ruckersville, Greene County, Virginia.

3517 AE Hajek (91a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: Darnell Hollow, Monongalia County, West Virginia.

3518 AE Hajek (94b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 91. USA: Clifton Mills Rd., Preston County, West Virginia.

3519 AE Hajek (95a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Sandy Creek, Preston County, West Virginia.

3520 AE Hajek (102a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Harris Lake, Monongalia County, West Virginia.

3521 AE Hajek (128b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Camp Run, Pendleton County, West Virginia.

3522 AE Hajek (140a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: Quarry Run, Monongalia County, West Virginia.

3523 AE Hajek (145b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 91. USA: State Game Land #203, Allegheny County, Pennsylvania.

3524 AE Hajek (166a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.

3525 AE Hajek (203b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 91. USA: Galloway Rd., Preston County, West Virginia.

3526 AE Hajek (216b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: nr. Picnic Run, Allegany County, Maryland.

3533 AE Hajek (298b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: Parker Run, Preston County, West Virginia.

3537 M Brownbridge (HL-1.1). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. 4 Dec 91. USA: Whitington, Vermont.

3538 M Brownbridge (HL-2.3). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. 4 Dec 91. USA: Whitington, Vermont.

3564 M Brownbridge (R-38). Mummified larva, *Tanynothrips inconsequens* [Thysanoptera: Thripidae]. 4 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3572 TJ Poprawski (2). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3573 TJ Poprawski (3). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3574 TJ Poprawski (4). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3575 TJ Poprawski (5). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3576 TJ Poprawski (6). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3577 TJ Poprawski (7). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3578 TJ Poprawski (8). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3579 TJ Poprawski (9). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3580 TJ Poprawski (10). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

Fungal Cultures

Paecilomyces farinosus *Paecilomyces fumosoroseus*

3581 SP Wraight (11). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3582 SP Wraight (12). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3583 SP Wraight (13). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3584 SP Wraight (14). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3585 SP Wraight (16). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3586 SP Wraight (17). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3587 SP Wraight (18). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3588 SP Wraight (19). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3589 SP Wraight (20). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3590 TJ Poprawski (21). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3591 TJ Poprawski (22). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3592 TJ Poprawski (23). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3593 TJ Poprawski (24). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3594 TJ Poprawski (25). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

3595 AE Hajek (35). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 24 Jun 91. USA: horsetrack at Equine Center, Freese Rd., Ithaca, New York.

3596 AE Hajek (146). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: Salem Park, Ithaca, New York.

3597 AE Hajek (149). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: 35 Sapsucker Woods Rd., Ithaca, New York.

3598 AE Hajek (370). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 91. USA: Uhl, Ithaca, New York.

3599 AE Hajek (438). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: nr. Equine Center, Freese Rd., Ithaca, New York.

3658 TJ Poprawski (40). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on fig tree. 28 Jan 92. USA: El Centro, California.

3659 TJ Poprawski (41). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 28 Jan 92. USA: Calexico, California.

3660 TJ Poprawski (43). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae] on hibiscus. 28 Jan 92. USA: Calexico, California.

3661 TJ Poprawski (44). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae] on vine. 28 Jan 92. USA: Heber, California.

3662 TJ Poprawski (45). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on hibiscus. 28 Jan 92. USA: Calexico, California.

3663 TJ Poprawski (48). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 28 Jan 92. USA: Calexico, California.

3664 AE Hajek (1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: Weakley Hollow, Madison County, Virginia.

3665 AE Hajek (23). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: Runkles Gap, Rockingham County, Virginia.

3666 AE Hajek (27). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.

Paecilomyces flavovirescens Shimazu & Humber (sp. nov., unpublished) [Hyphomycetes]

1686 M Shimazu (48a) ← S Ando. *Resseliella odai* [Diptera: Cecidomyiidae]. 26 Jul 84. Japan: Oita Prefecture. CULTURE EX TYPE.

Paecilomyces fumosoroseus (Wize) Brown & Smith [Hyphomycetes]

722 [CNPAF 82-1-15-05; CP 18] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Jan 82. Brazil: CNPAF, Goiânia, Goiás.

723 [CNPAF 82-1-6-10; CP 17] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.

744 [CNPAF 82-2-15-05; CP 26] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.

887 [INRA 51] GG Soares (1) ← H Hoyer. Pupa, [Diptera]. Nov 82. France: nr. Paris.

989 J Aoki (Paec. 3) ← Y Sekizima. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Kumagaya, Saitama Prefecture.

1005 J Aoki (PaeC. 2). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.

1506 I Majchrowicz (71) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1530 TJ Poprawski (0127A(bis)). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.

1532 TJ Poprawski (0127B(bis)). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.

1568 KV Deseō (101) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1569 KV Deseō (107) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1576 KV Deseō (93). Larva, *Monophadnus elongatus* [Hymenoptera: Tenthredinidae]. Feb 84. Italy: Bologna, Emilia-Romagna.

1577 KV Deseō (104) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1578 KV Deseō (108) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1579 KV Deseō (110) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).

1626 TJ Poprawski (0103B). Pupa, *Musca autumnalis* [Diptera: Muscidae]. 6 Aug 84. France: Le Trait, Seine-Maritime.

1644 TJ Poprawski (0141A). Pupa, *Musca domestica* [Diptera: Muscidae]. 14 Aug 84. France: Britang.

1645 TJ Poprawski (0141B). Pupa, *Musca domestica* [Diptera: Muscidae]. 14 Aug 84. France: Britang.

1646 TJ Poprawski (0142). Pupa, *Calliphora* sp. [Diptera: Calliphoridae]. 17 Aug 84. France: Béhoust, Yvelines.

1867 TJ Poprawski (0171). Pupa, *Musca domestica* [Diptera: Muscidae]. Acc'd 25 Mar 85. France: Brittany, Morbihan.

1868 TJ Poprawski (0172). Pupa, *Musca domestica* [Diptera: Muscidae]. Acc'd 25 Mar 85. France: Brittany, Morbihan.

2198 MC Rombach (161285-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 16 Dec 85. Philippines: IRRI farm, Los Baños, Manila.

2216 [CNPAF 86-06-05-1; CP 212] DW Roberts ← PMOJ Neves. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2217 [CNPAF 86-06-02-2; CP 213] DW Roberts ← OS Ohashi. *Lagria vilosa* [Coleoptera: Lagriidae]. 2 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2219 [CNPAF 86-06-05-3; CP 215] DW Roberts ← DMF Capalbo. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2220 [CNPAF 86-06-05-4; CP 216] DW Roberts ← GS da Silva. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2221 [CNPAF 86-06-05-1; CP 217] DW Roberts ← OS Ohashi. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2247 LS Osborne (UK-1). *Phenacoccus solani* [Homoptera: Pseudococcidae] on *Gynura* sp. Acc'd 6 Oct 86. USA: Florida.

2376 MC Rombach (201286-5). [Araneida]. 20 Dec 86. Philippines: Mt. Makiling, Los Baños, Manila.

2425 DG Holdom (080287-2). Larva, [Diptera: ?Stratiomyidae]. 8 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2429 DG Holdom (220287). *Nilaparvata lugens* [Homoptera: Delphacidae]. 22 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2679 AS Martins. 3rd instar larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 13 Oct 88. Portugal: Terceira Island, Azores.

2733 GW Riethmacher (B11W).. Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Mar 89. Philippines: La Trinidad, Benguet.

2744 GW Riethmacher (B5R9). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.

2745 GW Riethmacher (B5T10). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.

2749 GW Riethmacher (L4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 21 Mar 89. Philippines: La Trinidad, Benguet.

2804 GW Riethmacher (B12p). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 11 Apr 89. Philippines: Sta. Barbara, Pangasinan.

2952 [CP 273] SP Wraight ← CA da Silva. *Lagria vilosa* [Coleoptera: Lagriidae]. 8 Nov 88. Brazil: CNPAF, Goiânia, Goiás.

2956 CENARGEN (CG 123). *Spaethiella* sp. [Coleoptera: Chrysomelidae]. Rec'd 14 Mar 90. Brazil: Manaus, Amazonas.

3076 BM Cawley ← R Hernandez-Armenta. Immature, *Bemisia tabaci* [Homoptera: Aleyrodidae] on shade house-grown *Gerbera* sp. 10 Jul 90. USA: Naples, Florida.

3083 AD Ali. *Bemisia tabaci* [Homoptera: Aleyrodidae] on *Gerbera* sp. Rec'd 12 Sep 90. USA: nursery, nr. Alva, Florida.

3177 GW Riethmacher (B23). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 18 Dec 89. Philippines: Gumaca, Quezon.

Fungal Cultures

Paecilomyces fumosoroseus
Paecilomyces marquandii

3179 GW Riethmacher (B32). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Feb 90. Philippines: La Trinidad, Benguet.

3188 GW Riethmacher (B43b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 3 May 90. Philippines: La Trinidad, Benguet.

3302 J Gutierrez Samperio (18) ← ERD Reyes. *Diaphania hyalinata* [Lepidoptera: Pyralidae] on melon. 1990. Mexico: Michoacán, Baja California.

3313 J Gutierrez Samperio (29) ← ERD Reyes. *Bemisia* sp. [Homoptera: Aleyrodidae] on watermelon. 1990. Mexico: Tecomán, Colima.

3322 Yoder Bros. Inc (F2-4 BR). *Bemisia tabaci* [Homoptera: Aleyrodidae] on *Gerbera* sp. Dec 90. USA: Ft. Meyer, Florida.

3408 AD Ali. *Bemisia tabaci* [Homoptera: Aleyrodidae]. Rec'd 6 Apr 92. selected for resistance to benomyl at recommended field strength.

3429 K Ostrovska (51). [Hemiptera: Pentatomidae]. 25 Sep 91. Costa Rica: Carrara.

3458 AD Ali. *Myzus persicae* [Homoptera: Aphididae]. Rec'd 6 Apr 92.

3480 CENARGEN (CG 35). Leaves of *Cyperus rotundus*. Apr 91. Brazil: Brasília, Federal District.

3682 LS Osborne. [Homoptera: Aphididae]. Rec'd Apr 92. USA: Central Florida Research and Education Center, Apopka, Florida.

3699 LA Lacey (Ma17). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 7 Apr 92. India: Padappai.

3700 LA Lacey (Ma18). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on eggplant. 10 Apr 92. India: Padappai.

Paecilomyces guaensis Rombach & Humber [Hyphomycetes]

2152 MC Rombach (190386-1). [Orthoptera: Gryllidae]. 19 Mar 86. Indonesia: burial caves at Londa, nr. Makale, Sulawesi Selatan, Celebes.

Paecilomyces javanicus (Friederichs & Bally) Brown & Smith [Hyphomycetes]

322 GR Buckingham. *Litodactylus leucogaster* [Coleoptera: Curculionidae]. Dec 78. USA: Gainesville, Florida.

720 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 81. PR China: Hangzhou, Zhejiang.

3303 J Gutierrez Samperio (19) ← ERD Reyes. *Bemisia* sp. [Homoptera: Aleyrodidae] on watermelon. 1990. Mexico: Tecomán, Colima.

Paecilomyces lilacinus (Thom) Samson
[Hyphomycetes]
This species is being actively studied for the control of nematodes.

Caution: It is also known to be the causative agent of mycoses (primarily of the eye) in humans. There is probably little or no risk to workers handling this species for small-scale laboratory propagation and bioassay procedures. Caution should be observed to prevent chronic and/or massive exposure to airborne conidia of this species to minimize any associated health risks.

410 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 20 Jul 79. USA: Apopka, Florida.

986 J Aoki (Paec. 5) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Suginami, Tokyo Prefecture.

1552 MC Rombach (PAEC) ← MM Salleh. *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. May 84. Malaysia: Seberang Perai.

1951 [CENARGEN CG 301; CNPAF 85-05-02; CP 176] R Pereira. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 2 May 85. Brazil: Campos, Rio de Janeiro.

2181 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Matalom, Leyte.

2182 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Ormoc, Leyte.

2183 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Peru.

2184 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: University of the Philippines, Los Baños, Manila.

2185 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Carigara, Leyte.

2186 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Abuyog, Leyte.

3469 CENARGEN (CG 181). Soil. Jun 90. Brazil: Canarana, Mato Grosso.

3481 CENARGEN (CG 36). Egg, *Deois flavopicta* [Homoptera: Cercopidae]. Sep 91. Brazil: Brasília, Federal District.

3511 I Quintela (VL3). Rec'd 13 Dec 91.

3512 I Quintela (VL4). Rec'd 13 Dec 91.

Paecilomyces marquandii (Massee) Hughes
[Hyphomycetes]

2233 K Narayanan (8). *Meloidogyne* sp. [Tylenchida: Heteroderidae]. Rec'd 27 Aug 86. India.

3047 MS Goettel (4B-A). Soil. Jul 90. Mali: Mordiah.

3049 MS Goettel (4B-B). Soil. Jul 90. Mali: Mordiah.

Paecilomyces reniformis Samson & Evans in Samson
[Hymomycetes]

429 DW Roberts. [Orthoptera: Tettigoniidae] on rice.
31 Oct 79. Philippines: IRRI, Los Baños, Manila.
484 RS Soper. [Orthoptera: Tettigoniidae] on rice. 5 May
80. Philippines: IRRI, Los Baños, Manila.
577 RS Soper. [Orthoptera: Tettigoniidae] on rice.
24 Feb 81. Indonesia: Diski Village, Medan District,
Sumatera Utara.
2340 [ARSEF 2380 (never frozen)] MC Rombach (120286-
1). *Conocephalus* sp. [Orthoptera: Tettigoniidae] on
rice. 12 Feb 86. Philippines: Palawan.

Paecilomyces tenuipes (Peck) Samson
[Hymomycetes]

2488 SR Sánchez Peña (A1). *Spodoptera frugiperda* [Le-
pidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez
Farias, Tamaulipas. Restricted until September 1994.
2489 SR Sánchez Peña (A2). *Spodoptera frugiperda* [Le-
pidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez
Farias, Tamaulipas. Restricted until September 1994.
2490 SR Sánchez Peña (B1). *Spodoptera frugiperda* [Le-
pidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez
Farias, Tamaulipas. Restricted until September 1994.
2491 SR Sánchez Peña (B2). *Spodoptera frugiperda* [Le-
pidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez
Farias, Tamaulipas. Restricted until September 1994.

Paecilomyces viridis Segretain ex Samson
[Hymomycetes]

807 RA Daoust (Ek8-4). *Empoasca kraemeri* [Homoptera:
Cicadellidae]. Brazil.
2160 BN Muthappa (PNG 12720). *Anoplolepis longipes*
[Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua
New Guinea.
2456 UAMH (2994) ← Pasteur Institute (CIP-849). Rec'd
28 Jul 87.

Paecilomyces sp. nov.
[Hymomycetes]

3084 J Peña ← H Glenn. *Unaspis citri* [Homoptera:
Diaspididae] on *Citrus aurantifolia*. May 90. USA:
Homestead, Florida.

Pandora blunckii (Lakon ex Zimmerman) Humber
[Zygomycetes: Entomophthorales]

217 [ATCC 34698; CBS 194.77; IMI 211910] G Zimmer-
mann (2). Larva, *Plutella xylostella* [Lepidoptera:
Plutellidae]. 27 Mar 78. Germany: Gross-Bieberau,
Darmstadt, Hesse. CULTURE EX NEOTYPE.
915 S Keller (426). *Athalia rosae* [Coleoptera: Elateridae].
1 Sep 82. Switzerland.
917 S Keller (425). *Athalia rosae* [Coleoptera: Elateridae].
1 Sep 82. Switzerland: Zürich.

920 S Keller (430). *Athalia rosae* [Coleoptera: Elateridae].
1 Sep 82. Switzerland: Zürich.

1000 J Aoki (Ent. 30) ← H Tomiyama. *Plutella xylostella*
[Lepidoptera: Plutellidae]. Nov 77. Japan: Fuchi,
Tokyo Prefecture.

1004 [FPMI 752] J Aoki (Ent. 35) ← M Shimazu. Rec'd
7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.

1715 S Keller (514). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 84. Switzerland: Reckenholz, Zürich.

1716 S Keller (515). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 84. Switzerland: Reckenholz, Zürich.

1717 S Keller (516). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 84. Switzerland: Reckenholz, Zürich.

1718 S Keller (517). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 84. Switzerland: Reckenholz, Zürich.

2824 GW Riethmacher (EB4). *Plutella xylostella* [Le-
pidoptera: Plutellidae]. 8 Apr 89. Philippines: La
Trinidad, Benguet. ARSEF 2776, *Fusarium* sp., also
isolated from Riethmacher #EB4.

3075 DG Holdom. *Plutella* sp. [Lepidoptera: Plutellidae].
27 Apr 90. Australia: Lockyer Valley, Queensland.

3200 GW Riethmacher (EB3). *Plutella xylostella* [Le-
pidoptera: Plutellidae]. 8 Apr 89. Philippines: La
Trinidad, Benguet.

3201 GW Riethmacher (EB6). *Plutella xylostella* [Le-
pidoptera: Plutellidae]. 13 May 89. Philippines: La
Trinidad, Benguet.

3202 GW Riethmacher (EB7). *Plutella xylostella* [Le-
pidoptera: Plutellidae]. 8 Jun 89. Philippines: La
Trinidad, Benguet.

Pandora bullata (Thaxter & MacLeod in Humber)
Humber
[Zygomycetes: Entomophthorales]

116 [ARSEF 9 (lost); ATCC 24298] RS Soper. Adult,
Phaenicia sericata [Diptera: Calliphoridae]. 2 Aug
72. USA: Eastham, Massachusetts.

Pandora delphacis (Hori) Humber
[Zygomycetes: Entomophthorales]

134 M Shimazu. *Nilaparvata lugens* [Homoptera: Del-
phacidae]. 1975. Japan: Fukuoka, Fukuoka Prefec-
ture.

458 RS Soper. *Nephrotettix cincticeps* [Homoptera: Ci-
cadellidae]. 5 May 80. Philippines: IRRI, Los Baños,
Manila.

459 RS Soper. *Nephrotettix cincticeps* [Homoptera: Ci-
cadellidae]. 5 May 80. Philippines: IRRI, Los Baños,
Manila.

460 RS Soper. *Nephrotettix cincticeps* [Homoptera: Ci-
cadellidae]. 5 May 80. Philippines: IRRI, Los Baños,
Manila.

461 RS Soper. *Nephrotettix cincticeps* [Homoptera: Ci-
cadellidae]. 5 May 80. Philippines: IRRI, Los Baños,
Manila.

478 RS Soper (B). *Nephrotettix cincticeps* [Homoptera: Cicadellidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

575 RS Soper (8132-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 2 Mar 81. Indonesia: Desa Dasan Tereng Village, Kecamatan Narmada District, Lombok Island.

579 RS Soper (8132-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 2 Mar 81. Indonesia: Desa Dasan Tereng Village, Kecamatan Narmada District, Lombok Island.

580 RS Soper (81223-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Feb 81. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.

593 [CSIRO EM654] RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.

603 RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.

657 DW Roberts (101081-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Jansui, Jiangsu.

659 DW Roberts (101081-6-2). *Recilia dorsalis* [Homoptera: Cicadellidae]. 10 Oct 81. PR China: Jansui, Jiangsu.

660 DW Roberts (101081-6-2). *Recilia dorsalis* [Homoptera: Cicadellidae]. 10 Oct 81. PR China: Jiangsu.

665 DW Roberts (102181-9). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

666 DW Roberts (102181-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

667 DW Roberts (102181-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

668 DW Roberts (101081-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Nanjing, Jiangsu.

669 DW Roberts (102181-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

670 DW Roberts (101381-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Oct 81. PR China: Hangzhou, Zhejiang.

672 DW Roberts (101081-5-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Nanjing, Jiangsu.

673 DW Roberts (100981-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 9 Oct 81. PR China: Nanjing, Jiangsu.

674 DW Roberts (100981-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 9 Oct 81. PR China: Nanjing, Jiangsu.

676 DW Roberts (102181-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

682 DW Roberts (101081-2-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Nanjing, Jiangsu.

686 DW Roberts (101081-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Jiangsu.

698 *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Apr 81. PR China: Wuhan, Hupei.

713 DW Roberts (102181-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

716 DW Roberts (100981-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 9 Oct 81. PR China: Nanjing, Jiangsu.

1101 J Aoki (Ent. 36) ← M Shimazu. Acc'd 14 Mar 84. Japan: Chikugo, Fukuoka Prefecture.

1124 M Shimazu (F-16). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 29 Mar 84. Japan: Fukuoka Prefecture.

1132 M Shimazu (F-32). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.

1133 M Shimazu (F-33). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.

1238 [CNPAF 84-04-13-1B; CP 138] DW Roberts. [Homoptera: Cicadellidae]. 13 Apr 84. Brazil: CNPAF, Goiás.

1264 J Aoki (Ent. 6) ← M Shimazu. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.

1265 J Aoki (Ent. 7) ← H Tomiyama. *Mamestra brassicae* [Lepidoptera: Noctuidae]. Nov 75. Japan: Fuchu, Tokyo Prefecture.

1268 M Shimazu (F-56). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.

1730 DW Roberts (26108) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.

1731 DW Roberts (26105) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.

1936 SG Wright and SP Wright (Q1). [Homoptera: Cicadellidae]. 31 May 85. Brazil: CNPAF, Goiânia, Goiás.

2028 JA Harper. *Spissistilus festinus* [Homoptera: Membracidae]. Acc'd 28 Oct 85. USA: Auburn, Alabama.

2046 P Taylor. Reisolate of ARSEF 579 passed through *Sogatodes oryzicola* [Homoptera: Delphacidae]. Acc'd 26 Nov 85. Lab. manipulation.

2047 P Taylor. Reisolate of ARSEF 579 passed through *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 26 Nov 85. Lab. manipulation.

2091 DG Holdom (200186-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 20 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2092 DG Holdom (260186-1). *Sogatella furcifera* [Homoptera: Delphacidae]. 26 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2093 DG Holdom (260186-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 26 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2094 DG Holdom (270186). *Sogatodes pusanus* [Homoptera: Delphacidae]. 27 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2095 DG Holdom (020286). *Sogatella furcifera* [Homoptera: Delphacidae]. 2 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2096 DG Holdom (060286). *Sogatella furcifera* [Homoptera: Delphacidae]. 6 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2409 DG Holdom (310187-1). *Sogatella furcifera* [Homoptera: Delphacidae]. 31 Jan 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

3062 M Wheeler. [Hemiptera: Miridae]. 13 Aug 90. USA: Snapp field #2D, Newark Valley, New York.

3072 M Wheeler ← H Firstencel. *Empoasca fabae* [Homoptera: Cicadellidae]. 7 Aug 90. USA: Snapp field #8A, Newark Valley, New York.

3093 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 11 Sep 90. USA: Snapp field #5G, Newark Valley, New York.

3094 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 11 Sep 90. USA: Snapp field #4G, Newark Valley, New York.

3095 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 10 Sep 90. USA: Hoffman field #2B, Catherine, New York.

3096 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 10 Sep 90. USA: Hoffman field #1G, Catherine, New York.

3106 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 20 Sep 90. USA: Hoffman field #4C, Catherine, New York.

3107 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 28 Sep 90. USA: Hoffman field #1B, Catherine, New York.

3484 G Lorenz. *Spissistilus festinus* [Homoptera: Membracidae] on soybeans (*Glycine max*). 18 Oct 91. USA: Lonoke County, Arkansas.

Pandora dipterigena (Thaxter) Humber
[Zygomycetes: Entomophthorales]

131 N Wilding (1). [Diptera]. 24 Aug 76. USA: Rogers Farm, Stillwater, Maine.

397 [ARSEF ?1066] S Keller (92). [Diptera: Nematocera]. 5 Jun 78. Switzerland.

1422 S Balazy (1496c). [Diptera: Brachycera] attached to the underside of lime tree leaf in deciduous forest undergrowth. 4 Jun 82. Poland: Bialowieza National Park.

1720 S Keller (521). [Diptera]. 18 Oct 84. Switzerland: Trasadingen, Schaffhausen.

1887 M Shimazu. [Diptera: ?Sciariidae]. 1 Jun 85. USA: Allegany State Park, Salamanca, New York.

1923 M Shimazu (FE1). [Diptera]. Summer 85. USA: Allegany State Park, Salamanca, New York.

2406 RI Samuels. Adult, [Trichoptera]. Aug 86. England: Newton Park, Avon.

Pandora kondoiensis (Milner, Mahon, & Brown)
Humber
[Zygomycetes: Entomophthorales]

369 [ARSEF 825] CSIRO (EM507) ← R Teakle. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. 5 Oct 77. Australia: Brisbane, Queensland.

825 [ARSEF 369] CSIRO (EM507) ← R Teakle. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. 5 Oct 77. Australia: Brisbane, Queensland.

828 CSIRO (EM598) ← RD Hughes. *Acyrtosiphon pisum* [Homoptera: Aphididae] on lucerne. 31 Jul 80. Australia: Dubbo, New South Wales.

837 CSIRO (EM600) ← RD Hughes. *Acyrtosiphon kondoi* [Homoptera: Aphididae] on lucerne. 31 Jul 80. Australia: Dubbo, New South Wales.

Pandora neoaphidis (Remaudière & Hennebert) Humber
[Zygomycetes: Entomophthorales]

78 RG Kenneth (E.a. 11) or (3072) ← A Uziel. [Homoptera: Aphididae] on *Solanum hirsutum*. Mar 76. Israel: potato field, Achuzam.

128 [IPLB 52] JP Latgé and G Remaudière. *Aphis* sp. [Homoptera: Aphididae] on *Cornus* sp. [Cornaceae]. 26 Aug 76. Canada: Saint-Gédéon, Québec.

181 FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 9 Aug 77. USA: Maine.

381 RS Soper. [Homoptera: Aphididae]. 26 Feb 79. Australia.

608 I Majchrowicz (80). *Aphis fabae* [Homoptera: Aphididae]. Jul 80. Poland: Szczecin.

609 I Majchrowicz (81). *Aphis fabae* [Homoptera: Aphididae]. Jul 80. Poland: Szczecin.

610 I Majchrowicz (82). *Aphis fabae* [Homoptera: Aphididae]. Jul 80. Poland: Szczecin.

611 I Majchrowicz (87). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.

612 I Majchrowicz (88). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.

613 I Majchrowicz (90). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.

614 I Majchrowicz (91). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.

636 I Majchrowicz (102). *Aphis fabae* [Homoptera: Aphididae]. 3 Jul 81. Poland: Szczecin.

637 I Majchrowicz (103). *Aphis fabae* [Homoptera: Aphididae]. 6 Jul 81. Poland: Stanpanel.

638 [CSIRO EM653] I Majchrowicz (104). *Aphis fabae* [Homoptera: Aphididae]. 16 Jul 81. Poland: Gumiense, Szczecin.

639 I Majchrowicz (105). *Aphis fabae* [Homoptera: Aphididae]. 18 Jul 81. Poland: Gryfino, Szczecin.

827 CSIRO (EM717) ← RJ Huppertz. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 11 Jan 82. Australia: 30 km from Deniliquin, Echuca, New South Wales.

829 CSIRO (EM736) ← LT Woolcock. *Hyperomyzus lactucae* [Homoptera: Aphididae]. 29 Nov 82. Australia: Murwillumbah, New South Wales.

830 CSIRO (EM723) ← RJ Huppertz. *Acyrtosiphon pisum* [Homoptera: Aphididae]. Fall 82. Australia: Hamilton, Victoria.

831 CSIRO (EM623) ← LT Woolcock. *Acyrtosiphon pisum* [Homoptera: Aphididae] on lucerne. 21 Apr 81. Australia: Bega, New South Wales.

833 [CSIRO EM739] RJ Milner. *Hyperomyzus lactucae* [Homoptera: Aphididae]. 8 Nov 82. Chile: airport, Easter Island.

835 CSIRO (EM633) ← L Shu-Sheng. *Hyperomyzus lactucae* [Homoptera: Aphididae] on *Sonchus* sp. 18 Jun 81. Australia: Black Mountain, Canberra, Aust. Capital Territory.

836 CSIRO (EM635) ← G Lutton. *Acyrtosiphon kondoi* [Homoptera: Aphididae] on lucerne. 29 Sep 81. Australia: 2 km SW of Gundagai, New South Wales.

838 CSIRO (EM670) ← G Lutton. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 13 Apr 82. Australia: Murrumbateman, New South Wales.

993 J Aoki (Ent. 25) ← K Nakamura. *Uroleucon formosanus* [Homoptera: Aphididae]. Jul 77. Japan: Hino, Tokyo Prefecture.

1134 M Shimazu (F-36). *Macrosiphum akebiae* [Homoptera: Aphididae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.

1137 M Shimazu (F-54). *Dactynotus formosanus* [Homoptera: Aphididae]. Acc'd 3 Apr 84. Japan: Tokyo Prefecture.

1570 DW Roberts ← F Messina. *Lygus* sp. [Hemiptera: Miridae] on cowpea. 31 Aug 84. USA: Ithaca, New York.

1596 I Majchrowicz (34). Pterygotes, *Hyalopterus pruni* [Homoptera: Aphididae]. Acc'd 19 Sep 84.

1597 I Majchrowicz (37). Apterygotes, *Sitobion* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84.

1598 I Majchrowicz (50). Pterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: Bezreus, Avignon.

1600 I Majchrowicz (164). Pterygotes, *Myzus persicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. Portugal: nr. Trofa.

1601 I Majchrowicz (170). Apterygotes, *Myzus* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. Spain: nr. St. Amalia.

1602 I Majchrowicz (172). Apterygotes, *Myzus* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. Spain: nr. St. Amalia.

1603 I Majchrowicz (178). Apterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. Spain: nr. St. Amalia.

1604 I Majchrowicz (201). Apterygotes, *Sitobion* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1605 I Majchrowicz (211). Pterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1606 I Majchrowicz (216). Apterygotes, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1607 I Majchrowicz (224). Apterygotes, *Macrosiphum* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1609 I Majchrowicz (230). Apterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1610 I Majchrowicz (236). Apterygotes, *Aphidula* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1611 I Majchrowicz (246). Apterygotes, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1612 I Majchrowicz (251). Apterygotes, *Macrosiphum* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1613 I Majchrowicz (257). Pterygotes, *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1615 I Majchrowicz (263). Apterygotes, *Aphidula* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1616 I Majchrowicz (269). Apterygotes, *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1617 I Majchrowicz (275). Apterygotes, *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

1618 I Majchrowicz (260 4.08). Acc'd 19 Sep 84.

1695 IL Sivcev (217). Alate, [Homoptera: Aphididae] on cabbage. 10 Jul 84. Yugoslavia: PKB Commune, E. Belgrade.

1696 IL Sivcev (R-1). Alate, [Homoptera: Aphididae] on roses. 7 Jun 84. Yugoslavia: laboratory, Zemun, Belgrade.

1784 IL Sivcev (281). Alate, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 8 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.

1785 IL Sivcev (278). Alate, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 8 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.

1786 IL Sivcev (271). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 8 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.

1824 IL Sivcev (V-11). 4th instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Veternik.

1825 IL Sivcev (F-19). 4th instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Futog.

1826 IL Sivcev (F-34). 3rd instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Futog.

1827 IL Sivcev (F-30). 3rd instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Futog.

1981 TJ Poprawski (0184). Nymph, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.

1985 TJ Poprawski (0188). Nymph, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.

1986 TJ Poprawski (0189). Nymph, *Macrosiphum rosae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.

1987 TJ Poprawski (0190). Nymph, *Macrosiphum rosae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.

2016 IL Sivcev (21/85). [Homoptera: Aphididae] on *Cychorium intibus*. 3 Jul 85. Yugoslavia: Zemun, Belgrade.

2017 IL Sivcev (74/85). *Acyrthosiphon pisum* [Homoptera: Aphididae] on pea. 5 Jul 85. Yugoslavia: Micunovo, Voyvodina.

2018 IL Sivcev (76/85). *Acyrthosiphon pisum* [Homoptera: Aphididae] on pea. 5 Jul 85. Yugoslavia: Micunovo, Voyvodina.

2019 IL Sivcev (63/85). *Aphis fabae* [Homoptera: Aphididae] on poppy. 5 Jul 85. Yugoslavia: Micunovo, Voyvodina.

2020 IL Sivcev (65/85). *Aphis fabae* [Homoptera: Aphididae] on poppy. 5 Jul 85. Yugoslavia: Micunovo, Voyvodina.

2085 TJ Poprawski (0191). Nymph, *Myzus persicae* [Homoptera: Aphididae] in alfalfa field. Acc'd 18 Feb 86. Spain: Ciudad Real.

2086 TJ Poprawski (0193). Nymph, *Myzus persicae* [Homoptera: Aphididae] in alfalfa field. Acc'd 18 Feb 86. Spain: Ciudad Real.

2108 IL Sivcev (174/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 14 Oct 85. Yugoslavia: Zemun, Belgrade.

2109 IL Sivcev (184/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 14 Oct 85. Yugoslavia: Zemun, Belgrade.

2110 IL Sivcev (185/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 14 Oct 85. Yugoslavia: Zemun, Belgrade.

2111 IL Sivcev (228/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 21 Oct 85. Yugoslavia: Zemun, Belgrade.

2112 IL Sivcev (229/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 21 Oct 86. Yugoslavia: Zemun, Belgrade.

2114 IL Sivcev (271/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2115 IL Sivcev (280/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2116 IL Sivcev (282/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2117 IL Sivcev (284/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2118 IL Sivcev (291/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2119 IL Sivcev (294/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2120 IL Sivcev (297/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2121 IL Sivcev (301/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2122 IL Sivcev (304/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.

2123 IL Sivcev (198/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 17 Oct 85. Yugoslavia: Bijeljina, Bosnia and Herzegovina.

2124 IL Sivcev (249/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 25 Oct 85. Yugoslavia: Futog.

2128 IL Sivcev (261/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 25 Oct 85. Yugoslavia: Futog.

2280 IL Sivcev (46/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.

2293 IL Sivcev (53/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.

2298 IL Sivcev. [Homoptera: Aphididae]. Acc'd 18 Nov 86. Yugoslavia: PKB commune, Zemun, Belgrade.

2583 K Hural (HG7202). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2584 K Hural (HG7203). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2585 K Hural (HG7204). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2587 K Hural (HG7207). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2588 K Hural (HG7208). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2589 K Hural (HG7209). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2591 K Hural (HG72011). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2592 K Hural (HG72012). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2593 K Hural (HG72013). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2594 K Hural (HG72014). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.

2754 K Hural (Au-7). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.

2755 K Hural (FR-14). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2756 K Hural (Ma-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 11 Jul 89. USA: Malone, New York.

2757 K Hural (Au-15). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2758 K Hural (FR-7). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2760 K Hural (Au-8). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.

2761 K Hural (Au-6). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.

2762 K Hural (Au-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.

2763 K Hural (FR-12). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2766 K Hural (Au-10). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2767 K Hural (Au-14). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2768 K Hural (Au-11). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2769 K Hural (Au-21). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2773 K Hural (FR-4). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2781 K Hural (Au-20). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2782 K Hural (Fe-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 11 Jul 89. USA: Malone, New York.

2783 K Hural (Ma-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 11 Jul 89. USA: Malone, New York.

2784 K Hural (Au-17). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2837 K Hural (Au-28). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.

2838 K Hural (Au-26). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.

2839 K Hural (Au-27). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.

2840 K Hural (FR-16). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2842 K Hural (FR-18). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2844 K Hural (FR-19). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2845 K Hural (FR-20). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2846 K Hural (FR-21). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2847 K Hural (Au-29). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.

2848 K Hural (Au-24). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.

2851 K Hural (FR-10). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2852 K Hural (FR-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2853 K Hural (FR-22). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2854 K Hural (Au-4). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.

2855 K Hural (Au-30). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.

2856 K Hural (MP-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Jun 89. USA: Ithaca, New York.

2865 K Hural (FR-23). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2866 K Hural (FR-24). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2867 K Hural (FR-25). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2868 K Hural (EW-5). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 30 May 89. USA: Trumansburg, New York.

2870 K Hural (FR-8). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.

2872 K Hural (FR-26). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

2873 K Hural (MP-5). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Jun 89. USA: Ithaca, New York.

2874 M Feng (MD8930). *Metopolophium dirhodum* [Homoptera: Aphididae]. Jul 89. USA: Parma, Idaho.

2875 M Feng (MD8931). *Metopolophium dirhodum* [Homoptera: Aphididae]. Jul 89. USA: Parma, Idaho.

2876 M Feng (MD8932). *Metopolophium dirhodum* [Homoptera: Aphididae]. Jul 89. USA: Parma, Idaho.

3081 SP Wraight. *Diuraphis noxia* [Homoptera: Aphididae]. 18 Jul 90. USA: irrigated barley field, Piedmont Organic Produce Farm, Wellington, Colorado.

3082 SP Wraight. *Diuraphis noxia* [Homoptera: Aphididae]. 28 Jun 90. USA: non-irrigated barley field, George Varra farm, Fort Collins, Colorado.

3126 G Mercadier and TJ Poprawski (9014). *Diuraphis noxia* [Homoptera: Aphididae] on *Hordeum murinum*. 10 May 90. France: Montpellier, Hérault.

3174 G Mercadier and TJ Poprawski (9015). *Diuraphis noxia* [Homoptera: Aphididae] on wheat. 11 May 90. France: Montpellier, Hérault.

3175 G Mercadier and TJ Poprawski (9016). *Diuraphis noxia* [Homoptera: Aphididae] on *Agropyron repens*. 11 May 90. France: Montpellier, Hérault.

3234 I Majchrowicz (28). *Acyrtosiphon pisum* [Homoptera: Aphididae] on pea. Jul 91. USA: Morgan Farm, Mt. Vernon, Washington.

3237 I Majchrowicz (32). *Acyrtosiphon pisum* [Homoptera: Aphididae] on pea. Jul 91. USA: Dave Boon, Mt. Vernon, Washington.

3238 I Majchrowicz (37). *Aphis fabae* [Homoptera: Aphididae] on pineapple weed. Jul 91. USA: Morgan Farm, Mt. Vernon, Washington.

3240 I Majchrowicz (58). *Acyrtosiphon pisum* [Homoptera: Aphididae] on bean. 31 Jul 91. USA: garden nr. University of Idaho, Moscow, Idaho.

3241 I Majchrowicz (83). *Aphis fabae* [Homoptera: Aphididae] on *Chenopodium album*. 10 Aug 91. USA: nr. cages, Yakima, Washington.

3248 DC Steinkraus (1). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.

3249 DC Steinkraus (2). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.

3250 DC Steinkraus (5). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.

3251 DC Steinkraus (6). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.

3365 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring wheat. 9 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.

Fungal Cultures

Pandora neoaphidis
Saprolegnia sp.

3366 N Underwood ← SP Wright. *Schizaphis graminum* [Homoptera: Aphididae] on late-sown spring wheat. 5 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.

3367 N Underwood ← SP Wright. *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring wheat. 5 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.

3410 I Majchrowicz (71). *Aphis* sp. [Homoptera: Aphididae] on *Tanacetum vulgare* L. 8 Aug 91. USA: Bellingham, Washington.

3411 I Majchrowicz (8) ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.

3412 I Majchrowicz ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.

3459 I Majchrowicz (10) ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.

Pandora nouri (Remaudière & Hennebert) Humber [Zygomycetes: Entomophthorales]

199 [CSIRO EM652] RT Mietkiewski. [Homoptera: Aphididae] on potato. 1 Sep 77. USA: Rogers Farm, Stillwater, Maine.

362 CSIRO (EM538) ← R Teakle. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Rec'd 1979. Australia: Gatton, Queensland.

366 [IPLB 1066] CSIRO (EM542) ← JP Latgé. *Therioaphis maculata* [Homoptera: Aphididae]. Rec'd 22 Jan 79. USA.

Pandora nr. *delphacis*

[Zygomycetes: Entomophthorales]

2132 DG Holdom (180286). [Hemiptera: Miridae]. 18 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2146 DG Holdom (100286-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

Pandora nr. *echinospora* (Thaxter) Humber [Zygomycetes: Entomophthorales]

138 RG Kenneth (3098) ← S Bitton. [Diptera] on citrus leaf. Israel: Bet Dagan, Hamerkaz.

Penicillium sp.

[Hyphomycetes]

No species of this genus have been satisfactorily demonstrated to be a primary pathogen of insects. Its presence on or in insect cadavers should be interpreted as necro-phytic or accidental.

2643 DW Roberts ← VLRM Benassi. *Orthezia praelonga* [Homoptera: Ortheziidae]. 12 Sep 88. Brazil: Linhares, Espírito Santo.

2834 AE Hajek ← K Tatman (MD97#18). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 89. USA: Baltimore County, Maryland.

2836 AE Hajek ← K Tatman (MD110#28). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 89. USA: Baltimore County, Maryland.

2950 [CP 278] SP Wright ← E Dias Quintela. *Chalcodermus bimaculatus* [Coleoptera: Curculionidae]. 23 Jun 89. Brazil: CNPAF, Goiânia, Goiás.

3036 W Mechaber (weevil#2272). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Vaccinium angustifolium*. 20 May 90. USA: Carver, Massachusetts.

Penicillium thomii Maire [Hyphomycetes]

2056 [NRRL A-27471] GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Phialophora malorum (Kidd & Beaumont) McColloch [Hyphomycetes]

2072 GC Carroll (RSRS-24/68). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Phoma cava Schulzer [Hyphomycetes]

2071 GC Carroll (HO-O-Hatch VIII). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Podonectria coccicola Petch

3736 AY Rossman ← ME Palm ← Marsicano. 26 Mar 92. USA: Kissimmee, Florida.

Polycephalomyces formosus Kobayasi [Hyphomycetes]

1424 S Balazy (1431). Larva, *Calosoma* sp. [Coleoptera: Carabidae] on a deciduous forest floor. 29 Aug 81. Poland: Wielkopolski National Park.

Pseudogibellula formicarum (Mains) Samson & Evans [Hyphomycetes]

2913 CBS (433.73) ← HC Evans. [Homoptera: Cercopidae] on leaf of *Theobroma cacao*. 1973. Ghana: Tafo, Eastern.

Saprolegnia sp. [Oomycetes: Saprolegniales]

179 I MacDaniel. Larva, [Diptera: Simuliidae]. 18 Jun 77. USA: Little River, South Penobscot, Maine.

180 I MacDaniel. Larva, [Diptera: Simuliidae]. 18 Jun 77. USA: Little River, South Penobscot, Maine.

Schizangiella sp.

[Zygomycetes: Entomophthorales]

2237 R Blaschke (1). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Rec'd 30 Sep 86. Germany: Dresden.
2239 R Blaschke (14). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Acc'd 30 Sep 86. Germany: Dresden.

Schizangiella serpentis Humber (sp. nov., unpublished)

[Zygomycetes: Entomophthorales]

203 W Kaplan. Female adult, *Crotalus horridus* [Squamata: Viperidae]. May 74. USA: Baltimore Zoological Park, Baltimore, Maryland.

Scopulariopsis sp.

[Hyphomycetes]

2169 BN Muthappa (PNG 12725). [Coleoptera: Curculionidae]. Rec'd 12 May 86. Papua New Guinea.
2255 TJ Poprawski (8628). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] on oak tree. 7 Jul 86. France: Porto-Vecchio, Corsica.
2327 TJ Poprawski (8651). Nymph, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 6 Nov 86. France: Cognac, Charente.
2328 TJ Poprawski (8652). Pupa, *Lucilia illustris* [Diptera: Calliphoridae] on chicken dung. 16 Oct 86. France: Béhoust, Yvelines.
3189 GW Riethmacher (B43c). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 3 May 90. Philippines: La Trinidad, Benguet.
3203 GW Riethmacher (EB10). *Plutella xylostella* [Lepidoptera: Plutellidae]. 12 Mar 90. Philippines: La Trinidad, Benguet.

Sorosporella sp.

[Hyphomycetes]

377 JE Henry (118). ?*Melanoplus* sp. [Orthoptera: Acrididae]. Rec'd Jul 80. USA: Montana.

Sorosporella uvella (Krassiltschik) Giard
[Hyphomycetes]

Sorosporella is the chlamydosporic state of fungi whose conidial states are classified as *Syngliocladium* species. Clumps of chlamydospores germinate and produce fasciculate synnemata bearing clusters of *Syngliocladium* phialides.

1123 PP Sikorowski ← J Kuhre. 4th instar larva, *Curculio caryae* [Coleoptera: Curculionidae]. 14 Dec 83. USA: West Helena, Arkansas.
1714 G Riba. Acc'd 6 Nov 84. France.
1856 DG Boucias. *Scapteriscus vicinus* [Orthoptera: Gryllotalpidae]. 1984. USA: Gainesville, Florida.

Sporodiniella umbellata Boedijn ex Evans & Samson
[Zygomycetes: Mucorales]

2895 [IMI 232971] CBS (195.77) ← HC Evans. *Umbonia* sp. [Homoptera: Membracidae]. 1974. Ecuador: Pichilingue.

Sporothrix sp.

[Hyphomycetes]

3142 AT Gillespie ← J Aagesen. *Thrips tabaci* [Thysanoptera: Thripidae] on cucumber. Rec'd 27 Nov 90. Denmark: Tåstrup, København.

Sporothrix insectorum de Hoog & Evans

[Hyphomycetes]

2909 CBS (770.73) ← HC Evans. *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana: Atewa Forest Reserve.

2918 CBS (756.73) ← HC Evans. *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana: Atewa Forest Reserve. CULTURE EX TYPE.

Stachybotrys sp.

[Hyphomycetes]

2863 M Feng (SA8801). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. 19 Jun 88. USA: Wilder, Idaho.

Sterile mycelium

1353 S Balazy (1594). Rec'd 19 May 84. Poland.
2073 GC Carroll (CH-O-66/201). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.
3702 LA Lacey (060). Adult, [Homoptera: Cicadellidae]. 7 Apr 92. India: Padappai.
3703 LA Lacey (008A). Adult, [Homoptera: Aphididae]. 7 Mar 92. Pakistan: Lahore.
3705 LA Lacey (015A). Adult, [Homoptera: Aphididae]. 7 Mar 92. Pakistan: Lahore.
3710 LA Lacey (037A) ← A Kisk. Adult, [Homoptera: Aleyrodidae]. 18 Dec 91. Spain.
3711 LA Lacey (041A) or (041A). Adult, [Homoptera: Aleyrodidae]. 17 Mar 91. Nepal: Katmandu.
3712 LA Lacey (019A). Adult, [Homoptera: Aphididae]. 7 Mar 92. Pakistan: Lahore.

Stilbella buquetti (Montagne & Robin) Samson & Evans
[Hyphomycetes]

2915 CBS (511.88). 1988.

2917 CBS (999.73). 1973.

Fungal Cultures

Strongwellsea castrans Batko & Wiser [Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

3282 J Eilenberg (KVL 62). *Delia radicum* [Diptera: Anthomyiidae]. 8 Sep 88. Denmark: Roskilde.
 3485 J Eilenberg (KVL 84). *Delia radicum* [Diptera: Anthomyiidae]. Aug 91. Denmark: Slangerup, Frederiksborg.

Tilachlidium sp. [Hypomycetes]

2415 M Shimazu (F-545). [Coleoptera: Elateridae]. 14 Jul 86. Japan: Hachioji, Tokyo Prefecture.

Tilletiopsis sp. [Hypomycetes]

These strains were probably accidental contaminants of brown planthoppers. This genus is usually found only among phylloplane fungi and is not otherwise known to be entomopathogenic.

527 DW Roberts (82880-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: Chainat Rice Exp. Sta., N of Bangkok, Khlong Luang.
 572 DW Roberts (82880-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: Khlong Luang.
 573 DW Roberts (82880-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: Khlong Luang.

Tolypocladium cylindrosporum Gams [Hypomycetes]

705 GG Soares. *Aedes sierrensis* [Diptera: Culicidae]. USA: California.
 841 JS Pillai. *Aedes australis* [Diptera: Culicidae]. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
 961 [CBS ?719.70; CCFC DAOM 183952] UAMH (?4995) or (4563) ← J Weiser ← JS Pillai. [Diptera: Culicidae]. Rec'd 9 Sep 83. Czechoslovakia.
 962 [ATCC 42438; CCFC DAOM 167325] UAMH (4592) ← J Bissett (737). Soil sample SV113. 2 Jun 71. Canada: Bromus site, alpine eutric brunisol, grass slope, elev. 1900 m, Mt. Allen, Kananaskis Valley, Alberta.
 963 [CCFC DAOM 167176] UAMH (4593) ← S Visser. Soil. Aug 76. Canada: spruce-fir forest, elev. 5500-6000 ft, nr. Luscar, Alberta.
 976 [GCRI 131-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. Acc'd 17 Oct 83. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
 1027 [GCRI 130-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. 1982. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.

1028 [GCRI 132-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. 1982. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.

1580 GG Soares (Tc4c). *Aedes sierrensis* [Diptera: Culicidae]. Acc'd 17 Sep 84. USA: Novato, California.

2777 T Steenberg (186). [Lepidoptera: Noctuidae]. 6 Jun 89. Denmark.

2778 T Steenberg (187). [Lepidoptera: Noctuidae]. 19 Jun 89. Denmark.

2911 CBS (276.82) ← GG Soares. [Diptera: Culicidae]. 1982. New Zealand.

2912 CBS (989.73) ← LP Kish. *Plecia nearctica* [Diptera: Bibionidae]. 1973. USA: Florida.

2920 CBS (718.70). Peat soil. 1970. England: northern Pennines (Moorhouse). CULTURE EX TYPE.

3392 CCFC (DAOM 180479) ← G Dutzler (21). Soil. Rec'd 1 Oct 91. Nepal.

3393 CCFC (DAOM 180480) ← G Dutzler (26). Soil. Rec'd 1 Oct 91. Nepal.

Tolypocladium extinguens Samson & Soares [Hypomycetes]

2921 CBS (345.77) ← GJ Samuels. *Arachnocampa luminosa* [Diptera: Mycetophilidae]. 1977. New Zealand. CULTURE EX TYPE.

Tolypocladium geodes Gams [Hypomycetes]

2684 J Weiser (R5) ← J Bissett. Acc'd 14 Feb 89.
 3271 CCFC (DAOM 167321) ← J Bissett (384). Soil. Rec'd Apr 91. Canada: dry sedge meadow, elev. 2100 m, Mt. Allen, Kananaskis Valley, Alberta.
 3272 CCFC (DAOM 167323) ← J Bissett (570). Soil. Rec'd Apr 91. Canada: bromus site, grass slope, elev. 1900 m, Mt. Allen, Kananaskis Valley, Alberta.
 3273 CCFC (DAOM 167326) ← J Bissett (938). Soil sample SX133. Rec'd Apr 91. Canada: Bromus site, alpine eutric brunisol, grass slope, Mt. Allen, Kananaskis Valley, Alberta.
 3274 [ATCC 56502] CCFC (DAOM 176470) ← A Carter. Soil. 19 Nov 76. Canada: predominantly white spruce woods, 29.7 km SSE of Sudbury, Ontario.
 3275 CCFC (DAOM 191333) ← P Widden. Moorland soil, A1 horizon. Rec'd Apr 91. England: Gisburn Forest.
 3276 CCFC (DAOM 191336) ← P Widden. Festuca grasslands, moorland soil. Rec'd Apr 91. England: elev. 1850 ft, Pennines (Moorhouse).

Tolypocladium microsporum (Jaap) Bissett [Hypomycetes]

3431 CCFC (DAOM 191103) ← R Summerbell. Roots of *Cornus canadensis*. 6 Jun 82. Canada: Kirkland Lake, Ontario.

Tolypocladium niveum (Rostrup) Bissett
[Hyphomycetes]

316 [CCF 962] ATCC (18981) ← O Fassatiova. Rec'd 27 May 81. Czechoslovakia.
3277 CCFC (DAOM 64352) ← W Gams. Humus (alpine soil). Rec'd Apr 91. Austria: Obergurgl-Ötztal, Tirol.
3278 CCFC (DAOM 160594) ← V Behan. *Mycobates* sp. [Acari: Orbatidae]. Rec'd Apr 91. Canada: Frobisher Bay, Baffin Island, Northwest Territories.
3279 CCFC (DAOM 167175) ← S Visser. Humified organic material. Rec'd Apr 91. Canada: undisturbed spruce-fir forest, nr. Luscar, Alberta.
3280 CCFC (DAOM 167322) ← J Bissett (530). Soil sample A382. Rec'd Apr 91. Canada: Dryas site, Warcup soil plate, alpine meadow, elev. 2530 m, Mt. Allen, Kananaskis Valley, Alberta.
3281 CCFC (DAOM 198395) ← D Strongman. Pupa, [Diptera: Tachinidae]. Rec'd Apr 91. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.
3320 CCFC (DAOM 63905) ← D Brewer. Slime from pulp & paper mill. Rec'd 30 Apr 91. Canada: Corner Brook, Newfoundland.
3321 [ARSEF 3397 (deaccessioned); J Bissett 88M-143] CCFC (DAOM 199924) ← D Perry (1602). *Choristoneura fumiferana* [Lepidoptera: Tortricidae] on spruce. Rec'd 30 Apr 91. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.
3394 CCFC (DAOM 183955) ← L Ippolito (38-BI). Root of black spruce, clay soil. Rec'd 1 Oct 91. Canada: SW Burt Lake, Burt Twp., Timiskaming District, Ontario.
3395 [J Bissett 83M-38] CCFC (DAOM 185687) ← D Lahaie. Sediment 21m below surface of acidic lake. Rec'd 1 Oct 91. Canada: White Pine Lake, NW of Sudbury, Ontario.
3396 CCFC (DAOM 191338) ← P Widden (LP-177). Festuca grasslands, moorland soil, A1 horizon. Rec'd 1 Oct 91. England: elev. 2750 ft, Pennines (Moorhouse).
3398 CCFC (DAOM 210147) ← DS Abrahamson (5). Maple/beech/birch forest floor. Rec'd 1 Oct 91. USA: Mt. Clinton Rd., White Mountain National Forest, New Hampshire.
3432 CCFC (DAOM 167132) ← P Widden (M-105). Soil in *Pinus contorta* stand. Rec'd 29 Oct 91. Canada: Kananaskis Valley, Alberta.
3433 [ATCC 36654] CCFC (DAOM 180481) ← G Dutzler (94). Soil. Rec'd 29 Oct 91. Nepal.

Tolypocladium nubicola Bissett
[Hyphomycetes]

3434 CCFC (DAOM 167320) ← J Bissett (164). Soil sample A322. Rec'd 29 Oct 91. Canada: Dryas site, Warcup soil plate, alpine meadow, Mt. Allen, Kananaskis Valley, Alberta.

3435 CCFC (DAOM 167324) ← J Bissett (633). Soil sample V222. Rec'd 29 Oct 91. Canada: Dryas site, Warcup soil plate, alpine meadow, Mt. Allen, Kananaskis Valley, Alberta.

Tolypocladium parasiticum Barron
[Hyphomycetes]

3436 CCFC (DAOM 184880) ← GL Barron. Bdelloid rotifers in farm soil. Rec'd 29 Oct 91. Canada: Guelph, Ontario.

Tolypocladium tundrense Bissett
[Hyphomycetes]

3399 CCFC (DAOM 167133) ← P Widden (M-106). Raised beech soil. Rec'd 1 Oct 91. Canada: Devon Island, Northwest Territories.
3400 CCFC (DAOM 167134) ← P Widden (M-107). Soil. Rec'd 1 Oct 91. Canada: sedge meadow, Devon Island, Northwest Territories.
3401 CCFC (DAOM 191334) ← P Widden (LP-235). Festuca grasslands, moorland soil, A1 horizon. Rec'd 1 Oct 91. England: elev. 2450 ft, Pennines (Moorhouse).

Torrubiella homopterorum Humber & Rombach (sp. nov., unpublished)
[Pyrenomycetes: Clavicipitales]

2045 MC Rombach (161085-11) ← SB Ahn (E1-22). *Nilaparvata lugens* [Homoptera: Delphacidae]. 16 Oct 85. Korea: Gun-Wandi.

Torrubiella ratticaudata Rombach & Humber
[Pyrenomycetes: Clavicipitales]

1915 MC Rombach (11(ascosp.)). *Euophrys ?trivittata* [Araneida: Salticidae] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.
1916 MC Rombach (9(ext.myc.)). *Euophrys ?trivittata* [Araneida: Salticidae] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Trichoderma sp.
[Hyphomycetes]

1361 S Balazy (1599a). Rec'd 19 May 84. Poland.

Trichothecium sp.
[Hyphomycetes]

653 DW Roberts (100881-2). *Nephrotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 8 Oct 81. PR China: Chansha, Hunan.
1217 TJ Poprawski (050A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.
1223 TJ Poprawski (060A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.

Fungal Cultures

Trichothecium roseum Link:Fries [Hypomycetes]

1212 TJ Poprawski (042). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.

1226 TJ Poprawski (001A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 18 May 83. Italy: Vetralla, Lazio.

1308 TJ Poprawski (044). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Acquapendente, Lazio.

1639 TJ Poprawski (0136). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.

1642 TJ Poprawski (0139). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.

2055 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

3708 LA Lacey (035A) ← A Kisk. Adult, [Homoptera: Aleyrodidae]. 11 Dec 91. Spain.

Tritirachium isariae (Petch) de Hoog [Hypomycetes]

1425 S Balazy (1585a). Rec'd 19 May 84.

Unidentified

These fungi were accessioned without verified identifications. Many strains listed here will be reassigned to known taxa as quickly as the opportunity allows. Some strains are undescribed new species; some are sterile and may not be identifiable to a level lower than the class.

1013 J Aoki (Ent. 38) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.

1051 J Aoki (Ent. 39) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.

1356 [ARSEF 1420] S Balazy (1595c). Rec'd 19 May 84. Poland.

1415 S Balazy (1550). Larva, *Hibernia defoliaria* [Lepidoptera: Geometridae] attached to the underside of leaves in forest undergrowth. 22 May 83. Poland: Bialowieza National Park.

1417 S Balazy (1547b). Larva, *Hibernia defoliaria* [Lepidoptera: Geometridae] attached to the underside of leaves in forest undergrowth. 22 May 83. Poland: Bialowieza National Park.

1419 S Balazy (1451'). [Araneida] under a leaf of *Tussilago farfara* in a deciduous forest. 2 Aug 82. Poland: Wielkopolski National Park.

1420 [ARSEF 1356] S Balazy (1595c). Rec'd 19 May 84. Poland.

1421 S Balazy (1552). Adult, *Cratichneumon lanius* [Hymenoptera: Ichneumonidae] attached to the underside of a leaf. 21 May 83. Poland: Bialowieza National Park.

1423 S Balazy (1508m). Juveniles & adults, [Hemiptera] attached to underside of leaves of *Stachys sylvaticus* in a leafy forest. 26 Jul 82. Poland: Wielkopolski National Park.

1634 [ARSEF 1667 (deaccessioned)] TJ Poprawski (0120). Nymph, [Coleoptera]. 27 Jun 84. France: Saint-Étienne du Bois, Loire.

1693 IL Sivcev (202). Alate, [Homoptera: Aphididae] on cabbage. 26 Jun 84. Yugoslavia: PKB Commune, E. Belgrade.

1694 IL Sivcev (216). Alate, [Homoptera: Aphididae] on cabbage. 10 Jul 84. Yugoslavia: PKB Commune, E. Belgrade.

1703 MC Rombach (E). *Cnaphalocrocis medicinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 84. Philippines: IRRI, Los Baños, Manila.

1922 M Shimazu (FE2). [Diptera]. Summer 85. USA: Allegany State Park, Salamanca, New York.

2022 IL Sivcev (55/85). *Aphis fabae* [Homoptera: Aphididae] on poppy. 1985. Yugoslavia: Micunovo, Voyvodina.

2528 GC Carroll (VO25) ← R Radcliffe. Phylum Nemata, Class Secernentia baited with barnyard soil. Winter 82. USA: Marcola, Oregon.

2555 DG Boucias (5788). Acc'd 7 Mar 88.

2563 JC Lord (Bartow C). *Anopheles* sp. [Diptera: Culicidae]. 8 Feb 88. USA: abandoned phosphate pit, Bartow, Florida.

2640 DW Roberts ← SB Alves (587). *Solenopsis invicta* [Hymenoptera: Formicidae]. Rec'd 23 Nov 88. Brazil: Cuiabá, Mato Grosso.

2746 GW Riethmacher (B10K). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 28 Feb 89. Philippines: La Trinidad, Benguet.

2747 GW Riethmacher (B4P). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 19 Jan 89. Philippines: La Trinidad, Benguet. [? *Gliocladium* sp.].

2752 GW Riethmacher (A1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Mar 89. Philippines: La Trinidad, Benguet. Arthroconidial hyphomycete.

2821 GW Riethmacher (E8). *Plutella xylostella* [Lepidoptera: Plutellidae]. 4 May 89. Philippines: La Trinidad, Benguet.

2999 SV Krueger (MF-Ec). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Feb 90. USA: Geneva, New York. [Hemiascomyete].

3122 G Mercadier and TJ Poprawski (8854 (first form)). [Homoptera: Aphididae] on *Bromus* sp. 10 Aug 88. France: Béhoust, Yvelines.

3123 K Ostrovska (53). *Lutzomyia* sp. [Diptera: Psychodidae]. Rec'd 3 Dec 91. Costa Rica: La Montana.

3124 K Ostrovska (54). *Lutzomyia* sp. [Diptera: Psychodidae]. Rec'd 3 Dec 91. Costa Rica: Nazareth, Guanacaste.

3125 G Mercadier and TJ Poprawski (9009). [Homoptera: Aphididae] on asparagus. 30 May 90. France: Béhoust, Yvelines.

3128 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 12 Oct 90. USA: greenhouse colony, Ithaca, New York.

3209 Yoder Bros. Inc. [Araneida] on azalea. Rec'd 27 Mar 92.

3227 M Nadeau (213). Adult, [Diptera: Simuliidae]. 1 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3228 M Nadeau (336). Adult, [Diptera: Simuliidae]. 17 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3229 M Nadeau (222). Adult, [Diptera: Simuliidae]. 19 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3230 M Nadeau (371). Adult, [Diptera: Simuliidae]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3231 M Nadeau (362). Adult, [Diptera: Simuliidae]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3232 M Nadeau (327). Adult, [Diptera: Simuliidae]. 4 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3233 M Nadeau (373). Adult, [Diptera: Simuliidae]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3235 M Nadeau (329). Adult, [Diptera: Simuliidae]. 4 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3236 M Nadeau (454). Adult, [Diptera: Simuliidae]. 11 Sep 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3239 I Majchrowicz (2) ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.

3242 M Nadeau (421). Adult, [Trichoptera]. 16 Aug 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3243 M Nadeau (386). Adult, [Trichoptera]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3244 M Nadeau (241). Adult, [Trichoptera]. 20 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3245 M Nadeau (231). Adult, [Diptera: Simuliidae]. 19 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3246 M Nadeau (240). Adult, [Diptera: Simuliidae]. 20 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3247 M Nadeau (228). Adult, [Diptera: Simuliidae]. 19 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.

3298 J Gutierrez Samperio (14) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.

3299 J Gutierrez Samperio (15) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.

3304 J Gutierrez Samperio (20) ← ERD Reyes. *Dialeurodes citri* [Homoptera: Aleyrodidae] on Citrus. 1990. Mexico: Tecomán, Colima.

3319 M Brownbridge (Perry 3). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91.

3368 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring wheat. 9 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.

3374 MB von Wechmar ← JM Laubscher. *Rhopalosiphum padi* [Homoptera: Aphididae]. Sep 89. South Africa: (32.48 S; 18.53 E) Pools, South Western Cape, Cape Province. Virus contaminants: aphid lethal paralysis virus (ALPV) and *Rhopalosiphum padi* virus (RhPV); Family: Picornaviridae, (tentative genus: *Enterovirus*).

3378 K Ostrovska (3) ← PG Lawlor. *Lutzomyia* sp. [Diptera: Psychodidae]. Jul 91. Guatemala: Tical, Petén.

3380 K Ostrovska (6) ← GC Lanzaro. *Anopheles gambiae* [Diptera: Culicidae]. 24 Aug 91. Mali: inside houses, Werekla, Koulikoro.

3381 K Ostrovska (9) ← GC Lanzaro. *Anopheles gambiae* [Diptera: Culicidae]. 24 Aug 91. Mali: inside houses, Werekla, Koulikoro.

3413 K Ostrovska (20) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

3417 K Ostrovska (26) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

3419 K Ostrovska (29) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

3420 K Ostrovska (31) ← MV Herrero. *Lutzomyia* sp. [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

3421 K Ostrovska (33) ← MV Herrero. *Lutzomyia* sp. [Diptera: Psychodidae]. 23 Sep 91. Costa Rica: Brasilito, Guanacaste.

3422 K Ostrovska (34) ← MV Herrero. Male, *Lutzomyia longipalpis* [Diptera: Psychodidae]. 23 Sep 91. Costa Rica: Brasilito, Guanacaste.

3423 K Ostrovska (35). *Lutzomyia* sp. [Diptera: Psychodidae]. 21 Sep 91. Costa Rica: Nazareth, Guanacaste.

3424 K Ostrovska (36). *Lutzomyia* sp. [Diptera: Psychodidae]. 21 Sep 91. Costa Rica: Nazareth, Guanacaste.

3425 K Ostrovska (37). *Lutzomyia* sp. [Diptera: Psychodidae]. 21 Sep 91. Costa Rica: Nazareth, Guanacaste.

3426 K Ostrovska (40). Male, *Lutzomyia trapidoi* [Diptera: Psychodidae]. 4 Oct 91. Costa Rica: La Selva.

3427 K Ostrovska (42). *Lutzomyia* sp. [Diptera: Psychodidae]. 4 Oct 91. Costa Rica: La Selva.

3428 K Ostrovska (47). *Lutzomyia* sp. [Diptera: Psychodidae]. 4 Oct 91. Costa Rica: La Selva.

3440 [CATIE 4] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.

3466 CENARGEN (CG 6). Soil. 1990. Brazil: Pelotas, Rio Grande do Sul.

3467 CENARGEN (CG 134). Pupa, *Euselasia* sp. [Lepidoptera: Riodinidae]. 1988. Brazil: Rio Grande do Sul.

3468 CENARGEN (CG 135). Larva, *Euselasia* sp. [Lepidoptera: Riodinidae]. 1988. Brazil: Rio Grande do Sul.

3470 CENARGEN (CG 182). Soil. Jun 90. Brazil: Campo Grande, Mato Grosso.

3471 CENARGEN (CG 304). *Sternechus subsignatus* [Coleoptera: Curculionidae]. 1990. Brazil: Passo Fundo, Rio Grande do Sul.

3473 CENARGEN (CG 309). Soil. 1990. Brazil: Salto da Divisa, Mato Grosso.

3474 CENARGEN (CG 310). Soil. 1990. Brazil: Jequié, Bahia.

3475 CENARGEN (CG 188). Soil. 1991. Brazil: Brasília, Federal District.

3476 CENARGEN (CG 189). Soil. 1991. Brazil: Brasília, Federal District.

3477 CENARGEN (CG 187). Soil. 1990. Brazil: Pelotas, Rio Grande do Sul.

3478 CENARGEN (CG 311). *Aracanthus* sp. [Coleoptera: Curculionidae]. 1990. Brazil: Santa Maria, Rio Grande do Sul.

3535 J Hernández Ramírez (1). *Zulia vilior costarricensis* [Homoptera: Cercopidae]. Rec'd 23 Jan 92. Costa Rica.

3536 J Hernández Ramírez (2). *Prosapia simulans* [Homoptera: Cercopidae]. Rec'd 23 Jan 92. Costa Rica.

3560 M Brownbridge (R-28). Mummified larva, *Tae-niothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3567 M Brownbridge (HL-4). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 92. USA: Windham County, Vermont.

3568 M Brownbridge (HL-5). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 92. USA: Windham County, Vermont.

3569 M Brownbridge (HL-6). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 92. USA: Windham County, Vermont.

3570 M Brownbridge (WFT-3). *Frankliniella occidentalis* [Thysanoptera: Thripidae] on chrysanthemum. Aug 91. USA: greenhouse, Burlington, Vermont.

3571 M Brownbridge (S-1). Soil. 12 Jan 92. USA: Ralph's sugar maple stand, Warren, Vermont.

3624 CENARGEN (CG 186). Soil. Jun 90. Brazil: Pelotas, Rio Grande do Sul.

3625 CENARGEN (CG 193). Soil. Oct 90. Brazil: Pelotas, Rio Grande do Sul.

3626 CENARGEN (CG 262). Soil. May 91. Brazil: To-canio, Goiás.

3627 CENARGEN (CG 263). Soil. Jun 91. Brazil: Coronel Musto, Mato Grosso.

3628 CENARGEN (CG 264). Soil. Jun 91. Brazil: Itacambari, Mato Grosso.

3629 CENARGEN (CG 265). Soil. May 91. Brazil: Porto Nacional, Goiás.

3630 CENARGEN (CG 266). Soil. May 91. Brazil: Balsas, Maranhão.

3631 CENARGEN (CG 268). Soil. Jun 91. Brazil: Mato Grosso.

3632 CENARGEN (CG 269). Soil. Jun 91. Brazil: Coronel Musto, Mato Grosso.

3633 CENARGEN (CG 270). Soil. May 91. Brazil: Araguaína, Goiás.

3634 CENARGEN (CG 271). Soil. May 91. Brazil: Teresina, Piauí.

3635 CENARGEN (CG 275). Soil. May 91. Brazil: Tasso Fragoso, Maranhão.

3636 CENARGEN (CG 308). Soil. Jun 90. Brazil: Sorriso, Mato Grosso.

3637 CENARGEN (CG 334). Soil. Oct 90. Brazil: Campinas, São Paulo.

3638 CENARGEN (CG 335). Soil. Jun 90. Brazil: Barra do Garça, Mato Grosso.

3639 CENARGEN (CG 345) ← MR Faria. Soil. Dec 91. Brazil: Minaçú, Goiás.

3640 CENARGEN (CG 346) ← MR Faria. Soil. Dec 91. Brazil: Minaçú, Goiás.

3641 CENARGEN (CG 347) ← MR Faria. Soil. Dec 91. Brazil: Minaçú, Goiás.

3642 CENARGEN (CG 348) ← MR Faria. Soil. Dec 91. Brazil: Minaçú, Goiás.

3643 CENARGEN (CG 349) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.

3644 CENARGEN (CG 350) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.

3645 CENARGEN (CG 351) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.

3646 CENARGEN (CG 352) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.

3647 CENARGEN (CG 353) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.

3648 CENARGEN (CG 354) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3649 CENARGEN (CG 355) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3650 CENARGEN (CG 356) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3651 CENARGEN (CG 357) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3652 CENARGEN (CG 358) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3653 CENARGEN (CG 359) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3654 CENARGEN (CG 360) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3655 CENARGEN (CG 361) ← MR Faria. Soil. Dec 91. Brazil: Minaçú, Goiás.
 3656 CENARGEN (CG 362) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3657 CENARGEN (CG 363) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
 3714 RA LeBrun ← J Hanula (C-5). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 1 Jul 91.
 3715 RA LeBrun ← J Hanula (C-1). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Summer 91.
 3719 RA LeBrun ← J Hanula (W-2). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 91.
 3722 Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 21 Jun 91. USA: Groton, Connecticut.
 3724 S DeFazio. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 18 May 92.
 3725 P Narayanasamy (30). Rec'd 28 May 92.
 3726 P Narayanasamy (33). Rec'd 28 May 92.
 3727 P Narayanasamy (31). Rec'd 28 May 92.
 3728 P Narayanasamy (34). Rec'd 28 May 92.
 3729 P Narayanasamy (32). Rec'd 28 May 92.
 3735 P Timper (C11). *Aphelenchoides* sp. [Aphelenchida: Aphelenchoididae]. Apr 92. USA: CU land, Rt. 366, Ithaca, New York.

Verticillium sp.
[Hyphomycetes]

1401 TJ Poprawski (089). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 83. France.
 1402 TJ Poprawski (090). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 83. France.
 1403 TJ Poprawski (091). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 83. France.
 2323 TJ Poprawski (8647). *Myzus nr. persicae* [Homoptera: Aphididae]. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
 2324 TJ Poprawski (8648). *Myzus nr. persicae* [Homoptera: Aphididae]. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.

2325 TJ Poprawski (8649). Adult, *Myzus nr. persicae* [Homoptera: Aphididae] on tobacco. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
 2326 TJ Poprawski (8650). Adult, *Myzus nr. persicae* [Homoptera: Aphididae] on tobacco. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
 2329 TJ Poprawski (8654). Adult, [Diptera: Tipulidae] on cotton. 29 Oct 86. France: greenhouse, Béhoust, Yvelines.
 2332 M Feng (SA8601). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. 25 Jul 86. USA: Apple Valley Rd. & Klahr Rd., Parma, Idaho.
 2414 K Narayanan (16). [Diptera]. Acc'd 6 May 87. India.
 2810 GW Riethmacher (B18b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 9 Jun 89. Philippines: La Trinidad, Benguet.
 2822 SR Sánchez Peña (3). Pupa, [Lepidoptera]. Jul 87. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.
 2832 SR Sánchez Peña (2). [Coleoptera]. Jul 87. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.
 3531 AE Hajek (93a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 91. USA: Harris Lake, Monongalia County, West Virginia.
 3539 M Brownbridge (B-1). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 29 Nov 91. USA: oak stand, Leddy Park, Chittenden County, Vermont.
 3547 M Brownbridge (R-6). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 91. USA: Laggis' sugar maple stand, Caledonia County, Vermont.
 3549 M Brownbridge (R-11). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Thurber's sugar maple stand, Windham County, Vermont.
 3550 M Brownbridge (R-12). White mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Goodhouse's sugar maple stand, Windsor County, Vermont.
 3551 M Brownbridge (R-13). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Rowe's sugar maple stand, Caledonia County, Vermont.
 3552 M Brownbridge (R-14). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Preseau's sugar maple stand, Addison County, Vermont.
 3556 M Brownbridge (R-22). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Washington County, Vermont.
 3561 M Brownbridge (R-29). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Motyka's sugar maple stand, Orange County, Vermont.

Fungal Cultures

Verticillium ?cephalosporum [Hyphomycetes]

3035 W Mechaber (weevil#2209). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Gaylussacia baccata*. 20 May 90. USA: Carver, Massachusetts.

Verticillium ?lecanii [Hyphomycetes]

3315 M Brownbridge (DT-122). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.

3316 M Brownbridge (Williams). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: William's sugar maple stand, Orange County, Vermont.

3317 M Brownbridge (Perry 2). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.

Verticillium balanooides (Drechsler) Dowsett, Reid & Hopkin [Hyphomycetes]

2483 [ATCC 46576; DAOM 185098] UAMH (5256) ← JA Dowsett. Phylum Nemata, Class Secernentia. Acc'd 1 Dec 87. Canada: Manitoba.

3173 P Timper. *Aphelenchoides* sp. [Aphelenchida: Aphelenchoididae]. Rec'd 5 Nov 91. USA: potato field, Long Island, New York.

3350 P Timper ← BA Jaffee. Phylum Nemata, Class Secernentia. Rec'd 19 Jun 91. USA: California.

Verticillium chlamydosporium (Preuss) Hassebrauk [Hyphomycetes]

2218 [CNPAF 86-06-05-6; CP 214] DW Roberts ← DMF Capalbo. *Lagria villosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

Verticillium cinnamoneum [Hyphomycetes]

2399 MC Rombach (131286-1). 13 Dec 86. Indonesia.

Verticillium cccosporum (Drechsler) Gams [Hyphomycetes]

2064 [ATCC 64259; CBS 789.85; NRRL A-27472] GC Carroll (E). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Verticillium fungicola (Preuss) Hassebrauk [Hyphomycetes]

2065 GC Carroll (6(HO-O-Hatch VIII)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Verticillium fusisporum Gams [Hyphomycetes]

923 BS Ekbom (821007). *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. 7 Oct 82. Sweden: Uppsala.

Verticillium indicum (Petch) Gams [Hyphomycetes]

2170 BN Muthappa (PNG 12719). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

Verticillium insectorum (Petch) Gams [Hyphomycetes]

2235 LS Osborne (UK-3(2)). *Rhizoecus* sp. [Homoptera: Pseudococcidae] in soil. Acc'd 8 Sep 86.

Verticillium lecanii (Zimmerman) Viegas [Hyphomycetes]

- 17 RS Soper ← JV Bell. USA.
- 204 RT Mietkiewski. *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 6 Feb 78. USA: greenhouse, Orono, Maine.
- 310 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 311 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 312 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 313 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 314 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 321 GR Buckingham. *Rhopalosiphum nymphaeae* [Homoptera: Aphididae]. Dec 78. USA: Crystal River, Gainesville, Florida.
- 555 P Kanagaratnam. *lecanium viridis* [Homoptera: Lecaniidae] on coffee on wet leaves under coconut. Dec 80. Sri Lanka: Bandirippuwa Est., Coconut Res. Inst, Lunuwila.
- 795 GA Kuter (182). Leaf litter under sugar maple. 1975. USA: Abraham's Woods, University of Wisconsin Arboretum, Green County, Wisconsin.
- 810 E Ballard. *Aedes triseriatus* [Diptera: Culicidae]. 20 Jul 82. USA: Berea, Kentucky.
- 811 RG Lawlor ← Tate and Lyle Ltd. Commercial formulation. Lab. manipulation.
- 900 Z Feng. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Spring 83. USA: Batavia, New York.
- 972 [GCRI 55-81] RA Hall. *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. Acc'd 17 Oct 83. Poland: glasshouse.
- 973 [GCRI 59-81] RA Hall. *Cossula cossus* [Lepidoptera: Cossidae]. Acc'd 17 Oct 83. Italy.
- 974 [GCRI 93-82a] RA Hall. [Homoptera: Aphididae]. Acc'd 17 Oct 83. Venezuela.
- 980 [GCRI 12-74] RA Hall. *Pulvinaria floccifera* [Homoptera: Coccoidea]. Acc'd 17 Oct 83. Turkey.
- 991 J Aoki (Har. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Suginami, Tokyo Prefecture.

994 J Aoki (Vert. 1). *Adoxophyes orana* [Lepidoptera: Tortricidae]. Feb 80. Japan: Iruma, Saitama Prefecture.

1002 J Aoki (Har. 1) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.

1026 [GCRI 13-74] RA Hall. *Myzus persicae* [Homoptera: Aphididae]. 1974. India: Nagaich.

1029 [GCRI 8-73] RA Hall. *Saissetia oleae* [Homoptera: Coccoidea]. 1973. Israel.

1032 [GCRI 80-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. 1982. Australia.

1033 [GCRI 20-79] RA Hall. *Icerya purchasi* [Homoptera: Margarodidae]. 1979. Sri Lanka.

1102 [FPMI 708] KV Deseö (6). Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Apr 81. Italy: Galliera.

1109 KV Deseö (29) ← Pasqualini. *Cydia pomonella* [Lepidoptera: Tortricidae]. Apr 82. Italy: Ravenna, Emilia-Romagna.

1328 TJ Poprawski (084). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 17 May 83. France: Chichery.

1330 S Balazy (1428). Adult, [Hymenoptera: Ichneumonidae]. 1 Sep 81. Poland: Wielkopolski National Park.

1332 S Balazy (1480). 16 Mar 82. Poland: Forest Research Institute, Warsaw.

1333 S Balazy (1453c). Rec'd 19 May 84. Poland.

1334 S Balazy (1453k). Rec'd 19 May 84. Poland.

1335 S Balazy (1539). Larva, *Malachius bipustulatus* [Coleoptera: Melyridae] under the stem bark of *Quercus robur* in leafy forest. 24 Apr 83. Poland: Wielkopolski National Park.

1351 S Balazy (1592). Rec'd 19 May 84. Poland.

1352 S Balazy (1592b). Rec'd 19 May 84. Poland.

1357 S Balazy (1595d). Rec'd 19 May 84. Poland.

1367 S Balazy (1541) ← Wisniewski. [Acari: Oribatidae]. 29 Apr 83. Poland: coniferous forest, Zwierzyniec, nr. Grodzisk, Warsaw.

1505 I Majchrowicz (70) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.

1774 RA Humber and MC Rombach. *Coccus viridis* [Homoptera: Coccoidea] on coffee under coconut. 12 Nov 84. Sri Lanka: Coconut Research Institute, Lunuwila.

1787 IL Sivcev (287). 3rd instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 1 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.

2009 CIRPON ← M Yasem de Romero. *Toxoptera citricida* [Homoptera: Aphididae]. 1985. Argentina: Tucumán.

2066 GC Carroll (4(HO-O-Hatch VIII)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

2149 DG Holdom (030386-1). *Coccus viridis* [Homoptera: Coccoidea] on coffee. 3 Mar 86. Indonesia: Yogyakarta, Java.

2150 DG Holdom (030386-2). *Coccus viridis* [Homoptera: Coccoidea] on coffee. 3 Mar 86. Indonesia: Yogyakarta, Java.

2334 M Feng (SAVL8602). *Sitobion avenae* [Homoptera: Aphididae] on wheat. 25 Jun 86. USA: greenhouse, Moscow, Idaho.

2460 TJ Poprawski (8705) ← AJ Nasca (VL-T9). *Toxoptera citricida* [Homoptera: Aphididae]. 1984. Argentina: Tucumán.

2659 C Gopalakrishnan (30). [Homoptera: Aphididae]. Rec'd Nov 88. India.

2858 M Feng (ME8701). *Macrosiphum euphorbiae* [Homoptera: Aphididae] on field corn. Aug 87. USA: Parma, Idaho.

2859 M Feng (SA8701). *Sitobion avenae* [Homoptera: Aphididae] on winter wheat. 12 Jun 87. USA: Hwy 95 & Klahr Rd., Canyon County, Idaho.

2862 M Feng (DN8801). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 28 Jun 88. USA: Wilder, Idaho.

2877 M Feng (DN8802). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 28 Jun 88. USA: Wilder, Idaho.

2878 M Feng (DN8701). *Diuraphis noxia* [Homoptera: Aphididae] on wheat. 20 Jul 87. USA: greenhouse, Parma, Idaho.

2916 CBS (537.81) ← HC Evans. [Homoptera: Coccoidea]. 1981. Ecuador: Galapagos Islands.

2923 MS Goettel. [Thysanoptera: Thripidae]. Rec'd 14 Dec 89. Canada.

2930 [IMI 331276] C Prior ← M Skinner. Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae] from soil. Rec'd 10 Jan 90. USA: sugar maple stand, Randolph, Vermont.

3000 MS Goettel. *Diuraphis noxia* [Homoptera: Aphididae] on barley. 23 Oct 89. Canada: nr. Writing-on-Stone Prov. Park, Warner County, Alberta.

3252 M Brownbridge (A). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.

3253 M Brownbridge (B). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.

3254 M Brownbridge (C). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.

3255 M Brownbridge (D). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.

3257 M Brownbridge (F). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 22 Feb 91. USA: Agway Research Farm, Tully, New York.

3258 M Brownbridge (G). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: B. Bascone, Sullivan County, New Hampshire.

3259 M Brownbridge (I). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Krug, Massachusetts.

3260 M Brownbridge (J). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Krug, Massachusetts.

3261 M Brownbridge (K). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 7 Dec 90. USA: Williamstown, Massachusetts.

3262 M Brownbridge (L). Discolored larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 7 Dec 90. USA: Williamstown, Massachusetts.

3263 M Brownbridge (M). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Clark, Massachusetts.

3264 M Brownbridge (N). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.

3265 M Brownbridge (O). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.

3266 M Brownbridge (P). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Hamden, Connecticut.

3267 M Brownbridge (Q). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.

3268 M Brownbridge (R). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.

3269 M Brownbridge (S). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.

3270 M Brownbridge (T). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.

3314 M Brownbridge. Larva, [Coleoptera: Scarabaeidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.

3318 M Brownbridge (Perry 1). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.

3324 Yoder Bros. Inc. *Myzus persicae* [Homoptera: Aphididae] on carnation. Mar 91. USA: Salinas, California.

3418 K Ostrovska (27) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

3464 D Wilson ← T Whitham. Gall, *Pemphigus betae* [Homoptera: Aphididae] on narrowleaf cottonwood, *Populus angustifolia*. Rec'd 5 Nov 91. USA: Arizona.

3554 M Brownbridge (R-20.1). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Twitchell's sugar maple stand, Bennington County, Vermont.

3555 M Brownbridge (R-21). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Twitchell's sugar maple stand, Bennington County, Vermont.

3557 M Brownbridge (R-23). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3558 M Brownbridge (R-25). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.

3559 M Brownbridge (R-27). Brown mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Begin's sugar maple stand, Windsor County, Vermont.

3562 M Brownbridge (R-31). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Motyka's sugar maple stand, Orange County, Vermont.

3563 M Brownbridge (R-34). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Motyka's sugar maple stand, Orange County, Vermont.

3600 AE Hajek (130). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 Jun 91. USA: Salem Park, Ithaca, New York.

3601 AE Hajek (363). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 91. USA: Sapsucker Woods, Ithaca, New York.

3683 AD Ali and M Brownbridge (F1.2) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3684 M Brownbridge (F2.3) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3685 M Brownbridge (F3.1) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3686 M Brownbridge (F4) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3687 M Brownbridge (F5) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3688 M Brownbridge (F6) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3689 M Brownbridge (F7) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3690 M Brownbridge (F9) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3691 M Brownbridge (F10) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

3701 LA Lacey (059) ← BL Parker. Adult, [Thysanoptera: Thripidae]. 26 Mar 92. France: Bellegarde, Gard.

3709 LA Lacey (036A) ← A Kisk. Adult, [Homoptera: Aleyrodidae]. 18 Dec 91. Spain.

Verticillium nr. aranearum (Petch) Gams
[Hypomycetes]

1905 MC Rombach (14). [Araneida] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Verticillium nr. cephalosporium
[Hypomycetes]

1365 S Balazy (1615). Rec'd 19 May 84. Poland.

Verticillium psalliotiae Treschow
[Hypomycetes]

2234 LS Osborne (UK-3(3)). *Rhizococcus* sp. [Homoptera: Pseudococcidae] in soil. Acc'd 8 Sep 86.

3416 K Ostrovska (25) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

Zoophthora sp.
[Zygomycetes: Entomophthorales]

3486 J Eilenberg (KVL 79). *Forficula auricularia* [Dermoptera: Forficulidae]. Sep 91. Denmark: Ølstykke, Frederiksborg.

3487 J Eilenberg (KVL 80). *Forficula auricularia* [Dermoptera: Forficulidae]. Sep 91. Denmark: Ølstykke, Frederiksborg.

3488 J Eilenberg (KVL 81). *Forficula auricularia* [Dermoptera: Forficulidae]. Sep 91. Denmark: Ølstykke, Frederiksborg.

Zoophthora anglica (Petch) Ben-Ze'ev & Kenneth
[Zygomycetes: Entomophthorales]

396 [ARSEF ?1377] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 77. Switzerland.

916 S Keller (411). *Notosteira elongata* [Hemiptera: Miridae]. 25 Aug 82. Switzerland.

926 S Keller (412). *Notosteira elongata* [Hemiptera: Miridae]. 25 Aug 82. Switzerland.

1739 N Wilding (85). *Trechus quadristriatus* [Coleoptera: Carabidae]. 5 Sep 78. England: Rothamsted Experimental Station, Harpenden, Hertfordshire.

2505 J Eilenberg (KVL 12). *Agriotes sputator* [Coleoptera: Elateridae]. 2 Jun 86. Denmark: Brogaard, Faarevejle.

Zoophthora aphidis (Hoffman in Fresenius) Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

425 [ARSEF 467 (lost), 643 (lost); CSIRO EM740] S Keller (84). *Anoecia corni* [Homoptera: Aphididae]. Rec'd 6 Feb 80. Switzerland.

Zoophthora lanceolata (Keller) Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

426 [ARSEF ?468] S Keller (95). [Diptera: Nematocera]. Rec'd 6 Feb 80. Switzerland: Rickenbach.

438 [ARSEF ?426] S Keller (95) ← G Remaudière. [Diptera: Brachycera]. Oct 77. France.

469 S Keller (115). [Diptera: Nematocera]. Rec'd 27 May 80. Switzerland: Rickenbach.

Zoophthora occidentalis (Thaxter) Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

207 [CSIRO EM680] RT Mietkiewski. *Macrosiphum euphorbiae* [Homoptera: Aphididae] on potato. 20 Sep 77. USA: Rogers Farm, Stillwater, Maine.

2841 K Hural (FR-17). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

3027 H Firstencel. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 26 Jun 90. USA: Freese Rd., Ithaca, New York.

3028 H Firstencel. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 11 Jul 90. USA: Stevenson Rd., Ithaca, New York.

3029 H Firstencel. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 25 Jun 90. USA: P-field, Aurora, New York.

3071 K Hural. *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 18 Sep 90. USA: Hoffman field #6G, Catherine, New York.

3073 K Hural. *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 18 Sep 90. USA: Hoffman field #7E, Catherine, New York.

Zoophthora phalloides (Batko) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

351 [IPLB 1116] CSIRO (EM541) ← JP Latgé. *Therioaphis maculata* [Homoptera: Aphididae]. 9 Nov 78. Mexico.

352 [ARSEF 1869 (lost)] CSIRO (EM681) or (EM548) ← N Wilding (27). *Myzus rannaculinum* [Homoptera: Aphididae]. 12 May 78. France: Rennes, Ille-et-Vilaine.

2281 IL Sivcev (52/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.

***Zoophthora phytonomi* (Arthur) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]**

113 [ARSEF 82 (lost); ATCC 34292; FPMI 951] RG Kenneth (3085) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. Apr 76. Israel: Sedé Eliyahu.

191 RG Kenneth (E.p. 2) or (3095) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Apr 76. Israel: Sedé Eliyahu.

192 RG Kenneth (3133) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. 2 Mar 77. Israel: Sedé Eliyahu.

202 [RG Kenneth 3178] AA Muka ← JP Kramer. *Hypera punctata* [Coleoptera: Curculionidae]. Jul 77. USA: Ithaca, New York.

2188 RJ Dysart. Larva, *Hypera punctata* [Coleoptera: Curculionidae]. 29 Apr 86. USA: Farmington, Delaware.

3342 S Roberts. Spring 91. USA: Eddyville, Illinois.

3343 S Roberts. Spring 91. USA: LaSalle County, Illinois.

3344 S Roberts. Spring 91. USA: Albion, Illinois.

***Zoophthora radicans* (Brefeld) Batko
[Zygomycetes: Entomophthorales]**

Major synonyms: *Entomophthora sphaerosperma* Fresenius, *Entomophthora radicans* Brefeld, *Erynia radicans* (Brefeld) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev.

13 [FPMI 696] RS Soper ← CC Thompson. *Neodiprion tsugae* [Hymenoptera: Diprionidae]. Aug 71. USA: Prince of Wales Island, Alaska.

21 RS Soper ← DE Leonard (BBIV-20). Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1973. USA: Maine.

44 [FPMI 697; RG Kenneth 3045] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: Oxbow-Masardis, Maine.

45 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: Oxbow-Masardis, Maine.

50 [FPMI 698] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: 0.1 mi N of Oxbow Rd. on Rt. 11, Oxbow-Masardis, Maine.

52 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 19 Jun 75. USA: 1.5 mi E of bridge at S. Bancroft, Bancroft Township, Maine.

68 [FPMI 688; IPLB 624] G Remaudière. *Tortrix viridiana* [Lepidoptera: Tortricidae]. 22 May 75. France: Forêt de Dourdan, Essonne.

72 [CSIRO EM532; FPMI 487] RG Kenneth (3046) ← ATCC (24493) ← DM MacLeod. *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 7 Aug 82. Canada: Ming's Bight, Newfoundland.

75 [FPMI 700] RG Kenneth (E.s. 28) or (3060). *Brachycaudus amygdalinus* [Homoptera: Aphididae] on *Polygonum equisetiforme* [Polygonaceae]. 23 Jan 76. Israel: Rehovot, Central District.

80 RG Kenneth (C.o. 15) or (3081) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 76. Israel: alfalfa field, Sedé Eliyahu.

81 RG Kenneth (C.o. 10) or (3082) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 76. Israel: Sedé Eliyahu.

88 [CSIRO EM569] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 76. USA: nr. Selden Road, Haynesville Woods, Maine.

103 [CSIRO EM518, EM578, EM724; FPMI 701] RG Kenneth (E.s. 31) or (3100) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 11 Jul 76. Israel: Sedé Eliyahu.

104 [CSIRO EM553, EM725] RG Kenneth (E.s. 32) or (3101) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 11 Jul 76. Israel: Sedé Eliyahu.

105 [CSIRO EM726] RG Kenneth (E.s. 33) or (3102) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

106 [CSIRO EM727] RG Kenneth (E.s. 34) or (3103) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

107 [CSIRO EM554] RG Kenneth (E.s. 35) or (3104) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

108 [CSIRO EM728] RG Kenneth (E.s. 36) or (3105) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

109 [CSIRO EM729] RG Kenneth (E.s. 37) or (3106) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

110 [CSIRO EM555] RG Kenneth (E.s. 38) or (3107) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

111 [CSIRO EM556, EM730] RG Kenneth (E.s. 40) or (3109) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

112 [CSIRO EM561] RG Kenneth (E.s. 41) or (3110) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.

114 [CSIRO EM517] RG Kenneth (E.s. 29) or (3096) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. 11 Jul 76. Israel: Sedé Eliyahu.

126 [FPMI 702; IPLB 27] JP Latgé and G Remaudière (625). *Psyllida etrioza* [Homoptera: Psyllidae] on *Prunus pensylvanicus* [Rosaceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.

139 [CSIRO EM731] RG Kenneth (E.s. 30) or (3097) ← A Uziel. *Theroaphis maculata* [Homoptera: Aphididae]. Israel: Sedé Eliyahu.

141 [FPMI 687] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Map reference: T4R10, Maine.

142 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 77. USA: Perham, Maine.

143 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Perham, Maine.

144 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Perham, Maine.

145 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 23 Jun 77. USA: Carroll, Maine.

146 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Map reference: T6R7, Shin Pond, Maine.

161 JD Vandenberg. Single spore reisolate of ARSEF 88. Jul 77. Lab. manipulation.

162 JD Vandenberg. Single spore reisolate of ARSEF 88. Jul 77. Lab. manipulation.

163 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1 Jul 77. USA: forest-upper, Perham, Maine.

183 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.

184 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.

185 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.

186 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.

187 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.

188 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.

189 [ATCC 32797; FPMI 703] RG Kenneth (3044) or (2884) ← CBS (216.66) ← M Gustafsson. Phylum Arthropoda, Class Insecta. Rec'd 1977. Sweden.

195 RG Kenneth (3134) ← I Ben-Ze'ev. [Homoptera: Aphididae] on *Sonchus* sp. [Asteraceae]. 1977. Israel: citrus grove, Beir Yakov.

221 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Presque Isle, Maine.

222 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Presque Isle, Maine.

223 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Springfield, Maine.

224 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Springfield, Maine.

225 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Macwahoq, Maine.

226 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Macwahoq, Maine.

227 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 78. USA: Mamarda, Maine.

228 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 78. USA: Mamarda, Maine.

229 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.

230 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.

231 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.

232 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.

233 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.

234 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 78. USA: Oak Hill, Maine.

235 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 78. USA: Oak Hill, Maine.

237 [FPMI 704] P Dodge. *Theroaphis maculata* [Homoptera: Aphididae]. Aug 78. USA: Ithaca, New York.

238 [CSIRO EM560] P Dodge. *Theroaphis maculata* [Homoptera: Aphididae]. Aug 78. USA: Ithaca, New York.

239 P Dodge. *Theroaphis maculata* [Homoptera: Aphididae]. Aug 78. USA: Ithaca, New York.

359 [ARSEF 370, 823; CSIRO EM539; IPLB 844] RJ Milner ← ARSEF (103). *Theroaphis maculata* [Homoptera: Aphididae]. Australia: Armidale, New South Wales. Reisolated from field release at Armidale; forms protoplasts.

370 [ARSEF 359, 823; CSIRO EM539; IPLB 844] RJ Milner ← ARSEF (103). *Theroaphis maculata* [Homoptera: Aphididae]. Australia: Armidale, New South Wales. Reisolated from field release at Armidale.

379 [IPLB 1118] CSIRO (EM540) ← JP Latgé. *Theroaphis maculata* [Homoptera: Aphididae]. 9 Nov 78. Mexico.

388 S Keller (214). [Diptera]. Rec'd 3 Oct 79. Switzerland: Zürich.

389 S Keller (217). *Dicyphus pallidus* [Hemiptera: Miridae]. Rec'd 3 Oct 79. Switzerland: Zürich.

404 [FPMI 705] S Keller (59). Adult, [Lepidoptera]. 20 Jul 77. Switzerland.

407 [FPMI 706] FPMI (655) ← P Degroot. 4th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 79. Canada: Thessalon, Ontario.

491 H Beerman and DE McCabe. Reisolate of ARSEF 141 after 3 passes through *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 18 Jun 80. Lab. manipulation.

685 DW Roberts (102181-12). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.

789 [CNPAF 82-6-25-01; CP 64; CSIRO EM732] RA Daoust (EK8-1) and M Yokoyama. Adult, *Empoasca kraemerii* [Homoptera: Cicadellidae] on beans. 25 Jun 82. Brazil: CNPAF, Goiânia, Goiás.

790 [CNPAF 82-6-25-02; CP 65; CSIRO EM733] RA Daoust (EK8-2) and M Yokoyama. Adult, *Empoasca kraemerii* [Homoptera: Cicadellidae] on beans. 25 Jun 82. Brazil: CNPAF, Goiânia, Goiás.

800 EL Cuebas-Incle. [Homoptera: Cercopidae]. Jul 79. USA: Six Mile Creek, Ithaca, New York.

822 [CSIRO EM667; IPLB 421] CSIRO (EM667) ← G Remaudière. *Capitophorus* sp. [Homoptera: Aphidiidae]. 24 Oct 73. France: Quineville, Manche.

823 [ARSEF 359, 370; CSIRO EM539; IPLB 844] G Lutton and RJ Milner ← ARSEF (103). *Theroaphis maculata* [Homoptera: Aphidiidae]. 9 Nov 78. Australia: Armidale, New South Wales. Reisolated from field release at Armidale.

899 SP Wright (Ef-1). Reisolate of ARSEF 789 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. Feb 83. Lab. manipulation.

914 S Keller (445). *Drepanosiphum aceris* [Homoptera: Aphidiidae]. Nov 82. Switzerland.

1018 JV Maddox and MR McGuire (A). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

1019 JV Maddox and MR McGuire (B). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

1020 JV Maddox and MR McGuire (D). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

1021 JV Maddox and MR McGuire (F). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

1048 J Aoki (Ent. 8) ← H Kawamoto. *Plutella xylostella* [Lepidoptera: Plutellidae]. Dec 75. Japan: Fuchu, Tokyo Prefecture.

1050 J Aoki (Ent. 26) ← M Shimazu. *Delphacodes striatella* [Homoptera: Delphacidae]. Dec 76. Japan: Chikugo, Fukuoka Prefecture.

1082 CSIRO (EM752) ← G Lutton. *Merophysa divulsana* [Lepidoptera: Tortricidae]. 28 Jul 83. Australia: Boonah, Queensland.

1100 AR Rashid. Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. Apr 81. Malaysia: Cameron Highlands, Pahang.

1125 [CSIRO EM682] M Shimazu (F-17). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 29 Mar 84. Japan: Fukuoka Prefecture.

1130 [CSIRO EM742] S Keller (444). *Drepanosiphum aceris* [Homoptera: Aphidiidae]. Nov 82. Switzerland.

1136 M Shimazu (F-43). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.

1227 [CNPAF 84-04-03-6B; CP 127] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.

1228 [CNPAF 84-04-02-5D; CP 128] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1229 [CNPAF 84-04-02-6F; CP 129] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1231 [CNPAF 84-04-02-5B; CP 131] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1232 [CNPAF 84-04-02-5C; CP 132] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1233 [CNPAF 84-04-02-6G; CP 133] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1234 [CNPAF 84-04-02-6B; CP 134] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1236 [CNPAF 84-04-02-5J; CP 136] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1237 [CNPAF 84-04-02-5A; CP 137] DW Roberts. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.

1239 [CNPAF 84-03-30-2A-A; CP 139] DW Roberts. [Homoptera: Cicadellidae]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.

1261 JV Maddox and MR McGuire (C). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

1262 JV Maddox and MR McGuire (E). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

1263 J Aoki (Ent. 5) ← M Shimazu. [Homoptera: Cicadellidae]. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.

1336 [ARSEF 1428] S Balazy (1555). Adult, [Diptera: Nematocera] attached to the leaves of herbaceous plants on a leafy forest floor. 21 May 83. Poland: Bialowieza National Park.

1337 S Balazy (1558b). [Diptera] attached to the underside of leaves of arboraceous plants. 22 May 83. Poland: Bialowieza National Park.

1341 S Balazy (1577/6). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Sadurki.

1342 S Balazy (1577/7). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Sadurki.

1343 S Balazy (1577/8). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Sadurki.

1344 S Balazy (1578/1). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: gardens, Turka.

1345 S Balazy (1578/2). Larva, *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Turka.

1346 S Balazy (1578/1-2). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Turka.

1350 S Balazy (1589). Acc'd 5 Jun 84. Poland.

1428 [ARSEF 1336] S Balazy (1555). [Diptera: Nematocera] attached to the leaves of herbaceous plants on a leafy forest floor. 21 May 83. Poland: Bialowieza National Park.

1492 SG Wraight and SP Wraight (A-22). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1493 SG Wraight and SP Wraight (A-24). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 9 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1494 SG Wraight and SP Wraight (A-26). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 9 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1495 SG Wraight and SP Wraight (A-31). [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1496 SG Wraight and SP Wraight (A-33). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1497 SG Wraight and SP Wraight (A-37). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1498 SG Wraight and SP Wraight (A-41). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1499 SG Wraight and SP Wraight (A-42). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1500 SG Wraight and SP Wraight (A-44). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1501 SG Wraight and SP Wraight (A-50). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1502 SG Wraight and SP Wraight (B-37). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1503 SG Wraight and SP Wraight (B-33). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1504 SG Wraight and SP Wraight (B-40). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.

1541 SG Wraight and SP Wraight (B-48). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1542 SG Wraight and SP Wraight (B-51). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1543 SG Wraight and SP Wraight (Erl11T3). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1544 [ARSEF 1595] SG Wraight and SP Wraight (A-9). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1581 SG Wraight and SP Wraight (A-6). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1582 SG Wraight and SP Wraight (A-5). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1583 SG Wraight and SP Wraight (A-7). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1584 SG Wraight and SP Wraight (A-10). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1585 SG Wraight and SP Wraight (A-12). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1586 SG Wraight and SP Wraight (A-13). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1587 SG Wraight and SP Wraight (A-16). [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1588 SG Wraight and SP Wraight (A-17). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1589 SG Wraight and SP Wraight (A-19). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1590 SG Wraight and SP Wraight (A-21). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1591 SG Wright and SP Wright (A-30). [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1593 SG Wright and SP Wright (A-40). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1594 SG Wright and SP Wright (A-43). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1595 [ARSEF 1544] SG Wright and SP Wright (A-9). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

1674 M Shimazu (F-448(1)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 84. Japan: Hokkaido Prefecture.

1675 M Shimazu (F-448(2)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 84. Japan: Hokkaido Prefecture.

1699 MC Rombach (A). *Cnaphalocrosis medinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 84. Philippines: IRRI, Los Baños, Manila.

1719 S Keller (520). *Trioza urticae* [Homoptera: Psyllidae]. 18 Oct 84. Switzerland: Trasadingen, Schaffhausen.

1841 SG Wright and SP Wright (Ef239t2). Reisolate of ARSEF 239 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. 24 Jan 85. Lab. manipulation.

1921 M Shimazu (FE3). [Diptera]. 20 Jun 85. USA: Allegany State Park, Salamanca, New York.

1928 SG Wright and SP Wright (A1a). *Empoasca kraemeri* [Homoptera: Cicadellidae] on cowpea. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.

1929 SG Wright and SP Wright (B1). *Empoasca kraemeri* [Homoptera: Cicadellidae] on cowpea. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.

1930 SG Wright and SP Wright (L2). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.

1931 SG Wright and SP Wright (M2). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.

1932 SG Wright and SP Wright (K2). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.

1933 SG Wright and SP Wright (N1). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.

1934 SG Wright and SP Wright (F). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.

1935 SG Wright and SP Wright (J1). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.

1937 SG Wright and SP Wright (W3). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 8 Jun 85. Brazil: CNPAF, Goiânia, Goiás.

1938 MR McGuire (85-1(1pass)). *Empoasca fabae* [Homoptera: Cicadellidae] on snapbeans. 23 Jul 85. USA: Champaign, Illinois.

2196 DW Roberts. [Homoptera: Cicadellidae]. 2 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

2240 RI Carruthers (HOP-IV). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2241 RI Carruthers (HOP-V). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2242 RI Carruthers (HOP-III). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2243 RI Carruthers (HOP-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2244 RI Carruthers (HOP-VII). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2245 RI Carruthers (HOP-VI). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2246 RI Carruthers (HOP-I). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2256 TJ Poprawski (8631). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.

2257 TJ Poprawski (8633). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.

2258 TJ Poprawski (8634). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.

2259 TJ Poprawski (8635). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.

2260 TJ Poprawski (8636). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.

2261 TJ Poprawski (8637). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.

2262 TJ Poprawski (8639). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 30 Aug 86. France: Angoulême, Charente.

2282 RI Carruthers (D-I). *Empoasca* sp. [Homoptera: Cicadellidae] on sugar beet. 4 Sep 86. Yugoslavia: Dobakov.

2283 RI Carruthers (D-III). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Dobakov.

2284 RI Carruthers (D-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Dobakov.

2285 RI Carruthers. *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Padihska Skela.

2286 RI Carruthers (A-IV). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2287 RI Carruthers (A-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

2288 RI Carruthers (D-IV). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Dobakov.

2289 RI Carruthers (C-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Padihska Skela.

2400 H Firstencel. *Empoasca fabae* [Homoptera: Cicadellidae]. Mar 86. Segregant of ARSEF 1590, forms resting spores.

2410 DG Holdom (300187). Larva, *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 30 Jan 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2411 DG Holdom (130287-2). Adult, *Sesamia inferens* [Lepidoptera: Noctuidae]. 13 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

2499 [ARSEF 2524 (deaccessioned)] J Eilenberg (KVL 32). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2500 J Eilenberg (KVL 30). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2501 J Eilenberg (KVL 31). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2503 J Eilenberg (KVL 37). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2506 J Eilenberg (KVL 35). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2523 J Eilenberg (KVL 36). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2549 JV Maddox (HELMAV87, BULT). [Homoptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.

2550 JV Maddox (EL87, PLH). *Empoasca fabae* [Homoptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.

2551 JV Maddox (CHAMP87, BPLH-2). [Homoptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.

2552 JV Maddox (UNION87, BLH-1). [Homoptera: Cicadellidae]. 1987. USA: Union soybean field, McHenry, Illinois.

2554 [ARSEF 2669 (deaccessioned)] J Eilenberg (KVL 38). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.

2558 H Firstencel. Laboratory reisolate of ARSEF 1590 from marcescent material stored 35 months. Rec'd 8 Mar 88.

2600 BP Magalhães ← SP Wraight (T-7). Reisolate of ARSEF 1261. Acc'd 13 Sep 88.

2601 BP Magalhães ← SP Wraight (T-8). Reisolate of ARSEF 1261. Acc'd 13 Sep 88.

2666 J Eilenberg (KVL 47). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 88. Denmark: Roskilde.

2696 [ARSEF ?3161] TJ Poprawski (8812D). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.

2697 TJ Poprawski (88102). Reisolate of ARSEF 2700 after 3 passes through *Schizaphis graminum* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.

2698 TJ Poprawski (88111). Reisolate of ARSEF 2709 after 3 passes through *Chorisops tibialis* [Diptera: Stratiomyidae]. Rec'd 14 Apr 89. Lab. manipulation.

2699 TJ Poprawski (88113). Reisolate of ARSEF 2706 after 2 passes through *Empoasca flavescens* [Homoptera: Cicadellidae]. Rec'd 14 Apr 89. Lab. manipulation.

2700 [ARSEF 3171] G Mercadier and TJ Poprawski (8843A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

2701 [ARSEF 3119] G Mercadier and TJ Poprawski (8826). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

2702 [ARSEF ?3117] TJ Poprawski (8824B). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

2703 [ARSEF 3116] G Mercadier and TJ Poprawski (8820A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Kovin.

2704 TJ Poprawski (88100). Reisolate of ARSEF 2702 after 2 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.

2705 TJ Poprawski (88103). Reisolate of ARSEF 2701 after 7 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.

2706 [ARSEF 3149] G Mercadier and TJ Poprawski (8825A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

2707 TJ Poprawski (88107). Reisolate of ARSEF 2696 after 2 passes through *Acyrthosiphon pisum* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.

2708 [ARSEF ?3163] TJ Poprawski (8817B). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.

2709 [ARSEF 3114] G Mercadier and TJ Poprawski (8818A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.

2710 TJ Poprawski (88121). Reisolate of ARSEF 2703 after 2 passes through *Schizaphis graminum* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.

2711 TJ Poprawski (88108). Reisolate of ARSEF 2696 after 2 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.

2712 TJ Poprawski (88116). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.

2713 [ARSEF 3164] G Mercadier and TJ Poprawski (8823A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

2714 TJ Poprawski (88129). Reisolate of ARSEF 2703 passed through *Syrphus* sp. [Diptera: Syrphidae]. Rec'd 14 Apr 89. Lab. manipulation.

2716 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on snap bean. 1987. USA: Illinois Natural History Survey plot, Champaign, Illinois.

2717 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on soybean. 1987. USA: Union field, McHenry, Illinois.

2718 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on bean. 1987. USA: Helmar field, Kendall, Illinois.

2719 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on soybean. 1987. USA: East Lynn field, Vermillion, Illinois.

2720 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae]. 1985. USA: Champaign, Illinois.

2732 GW Riethmacher (EB2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 89. Philippines: La Trinidad, Benguet.

2811 M Feng (MD8901). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 7 Jul 89. USA: Parma, Idaho.

2893 GW Riethmacher (E2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 89. Philippines: La Trinidad, Benguet.

2977 D Landis (1A). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 23 Aug 89. USA: Michigan State University Botany Farm, Ingham County, Michigan.

2978 D Landis (1B). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 23 Apr 89. USA: Michigan State University Botany Farm, Ingham County, Michigan.

2979 D Landis (1C). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 23 Aug 89. USA: Michigan State University Botany Farm, Ingham County, Michigan.

2980 D Landis (2A). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 24 Aug 89. USA: Hudson Farm, Allegan County, Michigan.

2994 LG Leite and SP Wright (C-1 Topo SP-3). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 20 Apr 90. Brazil: Ribeirão Grande, São Paulo.

2995 LG Leite and SP Wright (C-1 Topo SP-2). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 20 Apr 90. Brazil: Ribeirão Grande, São Paulo.

2996 LG Leite and SP Wright (C-2 Test SP-5). *Empoasca kraemerii* [Homoptera: Cicadellidae]. 20 Apr 90. Brazil: Ribeirão Grande, São Paulo.

3002 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #10, field #1, Capão Bonito, São Paulo.

3003 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #4, field #1, Capão Bonito, São Paulo.

3004 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #2, field #2, Capão Bonito, São Paulo.

3005 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 5 Apr 90. Brazil: treatment plot #1, field #1, Capão Bonito, São Paulo.

3006 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #10, field #1, Capão Bonito, São Paulo.

3007 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #2, field #1, Capão Bonito, São Paulo.

3008 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #2, field #2, Capão Bonito, São Paulo.

3009 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 30 Apr 90. Brazil: treatment plot #1, field #1, Capão Bonito, São Paulo.

3010 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. Apr 90. Brazil: treatment plot #3, field #1, Capão Bonito, São Paulo.

3011 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 30 Apr 90. Brazil: control plot #1, field #1, Capão Bonito, São Paulo.

3012 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 7 May 90. Brazil: treatment plot #3, field #1, Capão Bonito, São Paulo.

3013 SP Wright ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #1, field #1, Capão Bonito, São Paulo.

3021 H Firstencel (Yugo-1). Rec'd 21 Dec 89. The Yugo mix, created by H. Firstencel, is a combination of the following 7 isolates: 2706, 2246, 2288, 2712, 2240, 2283, 2243.

3022 H Firstencel (Yugo-2). Rec'd 21 Dec 89. The Yugo mix, created by H. Firstencel, is a combination of the following 7 isolates: 2706, 2246, 2288, 2712, 2240, 2283, 2243.

3023 H Firstencel (Brazil-1). Rec'd 21 Dec 89. The Brazil mix, created by H. Firstencel, is a combination of the following 7 isolates: 1228, 1239, 1493, 1928, 1231, 1504, 1581.

3024 H Firstencel (Brazil-2). Rec'd 21 Dec 89. The Brazil mix, created by H. Firstencel, is a combination of the following 7 isolates: 1228, 1239, 1493, 1928, 1231, 1504, 1581.

3026 DW Roberts ← LG Leite. *Empoasca kraemerii* [Homoptera: Cicadellidae]. 5 Apr 90. Brazil.

3100 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field, strip #1, Catherine, New York.

3104 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field, strip #1, Catherine, New York.

3105 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field, strip #1, Catherine, New York.

3114 [ARSEF 2709] G Mercadier and TJ Poprawski (8818A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.

3115 G Mercadier and TJ Poprawski (8819A). *Typhlocyba* sp. [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.

3116 [ARSEF 2703] G Mercadier and TJ Poprawski (8820A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Kovin.

3117 [ARSEF ?2702] TJ Poprawski (8824B). Reisolate of ARSEF 3150 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 27 Nov 90. Lab. manipulation.

3118 TJ Poprawski (8825B). Reisolate of ARSEF 3149 passed through *Musca autumnalis* [Diptera: Muscidae]. Rec'd 27 Nov 90. Lab. manipulation.

3119 [ARSEF 2701] G Mercadier and TJ Poprawski (8826). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

3149 [ARSEF 2706] G Mercadier and TJ Poprawski (8825A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 22 Sep 88. Yugoslavia: Zemun, Belgrade.

3150 G Mercadier and TJ Poprawski (8824A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 22 Sep 88. Yugoslavia: Zemun, Belgrade.

3151 TJ Poprawski (8819B). Reisolate of ARSEF 3115 passed through *Empoasca vitis* [Homoptera: Cicadellidae]. Rec'd 27 Nov 90. Lab. manipulation.

3159 G Mercadier and TJ Poprawski (8812B). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.

3160 G Mercadier and TJ Poprawski (8812C). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.

3161 [ARSEF ?2696] TJ Poprawski (8812D). Reisolate of ARSEF 3160 passed through *Empoasca vitis* [Homoptera: Cicadellidae]. Rec'd 11 Dec 90. Lab. manipulation.

3162 TJ Poprawski (8817A) ← IL Sivcev. *Empoasca vitis* [Homoptera: Cicadellidae]. 23 Sep 88.

3163 [ARSEF ?2708] TJ Poprawski (8817B). Reisolate of ARSEF 3162 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 11 Dec 90. Lab. manipulation.

3164 [ARSEF 2713] G Mercadier and TJ Poprawski (8823A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

3165 G Mercadier and TJ Poprawski (8830A). *Empoasca vitis* [Homoptera: Cicadellidae] on cabbage. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

3170 G Mercadier and TJ Poprawski (8842A). *Typhlocyba* sp. [Homoptera: Cicadellidae] on *Abutilon* sp. 20 Sep 88. Yugoslavia: Zemun, Belgrade.

3171 [ARSEF 2700] G Mercadier and TJ Poprawski (8843A). *Typhlocyba* sp. [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

3172 TJ Poprawski (8843B). Reisolate of ARSEF 3171 passed through *Empoasca vitis* [Homoptera: Cicadellidae]. Rec'd 11 Dec 90. Lab. manipulation.

3204 GW Riethmacher (E3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 89. Philippines: La Trinidad, Benguet.

3205 GW Riethmacher (E5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 89. Philippines: La Trinidad, Benguet.

3206 GW Riethmacher (E6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 89. Philippines: La Trinidad, Benguet.

3213 M Wheeler (Yugo Mix Plate#1). Rec'd 27 Dec 90. This culture was taken from a bubbler mixture of ARSEFs 2240, 2243, 2246, 2283, 2288, 2706, and 2712.

3214 M Wheeler (Yugo Mix Plate#2). Rec'd 27 Dec 90. This culture was taken from a bubbler mixture of ARSEFs 2240, 2243, 2246, 2283, 2288, 2706, and 2712.

3217 SG Wraight and SP Wraight (Ef1590). Reisolate of ARSEF 1590 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. Rec'd 22 Jan 91. Lab. manipulation.

3283 [ARSEF 3284] S Roberts (Champ90LH2To(B)). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 1990. USA: Champaign County, Illinois.

3284 [ARSEF 3283] S Roberts (Champ90LH2To(E)). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 1990. USA: Champaign County, Illinois.

3355 M Wheeler. Reisolate of ARSEF 1019 after 2 passes through *Empoasca fabae* [Homoptera: Cicadellidae]. Rec'd 13 Jun 91. Lab. manipulation.

3376 M Wheeler ← MH Griggs. *Empoasca fabae* [Homoptera: Cicadellidae]. 26 Jul 91. USA: Game Farm Rd., Ithaca, New York.

3377 M Wheeler ← MH Griggs. *Empoasca fabae* [Homoptera: Cicadellidae]. 29 Jul 91. USA: Game Farm Rd., Ithaca, New York.

3390 M Wheeler ← MH Griggs. *Empoasca fabae* [Homoptera: Cicadellidae]. 5 Aug 91. USA: Game Farm Rd., Ithaca, New York.

3489 J Eilenberg (KVL 47). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 88. Denmark: Roskilde.

3623 [ARSEF 62 (lost); FPMI 699] ATCC (32245) ← RG Kenneth (3029). *Empoasca* sp. [Homoptera: Cicadellidae] on citrus leaf. Rec'd 11 Mar 92. Israel: Girat, Brenner.

Host by Fungus

Acremonium berkeleyanum Beauveria bassiana

Acremonium berkeleyanum [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2067	Ascospaera atra [Hymenoptera: Megachilidae] <i>Megachile rotundata</i> 693	Beauveria sp. [Coleoptera: Curculionidae] <i>Anthonomus grandis</i> 1835
Acremonium furcatum [Coleoptera: Curculionidae] <i>Hypera postica</i> 1372	Ascospaera major [Hymenoptera] Unknown species 694	<i>Hypera postica</i> 1327 <i>Shirahoshizo insidiosus</i> 1681
Acremonium roseum [Lepidoptera: Noctuidae] <i>Pseudoplusia ni</i> 1964	Ascospaera proliperda [Hymenoptera: Megachilidae] <i>Megachile centuncularis</i> 695 <i>Megachile rotundata</i> 696	[Coleoptera: Scarabaeidae] <i>Lachnostenus morosa</i> 1685 <i>Xyloryctes jamaicensis</i> 2412
Acrodontium crateriforme [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2070	Aspergillus sp. [Homoptera: Aleyrodidae] <i>Bemisia tabaci</i> 3698	[Hemiptera: Miridae] <i>Adelphocoris</i> 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1213 1214 1215 1216 1218 1219 1220 1221 1222 1224
Akanthomyces gracilis [Hymenoptera: Formicidae] <i>Paltothyreus tarsatus</i> 2910 2919	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2765 2817 2820	[Homoptera: Membracidae] Unknown species 2164
Aphanocladium album [Coleoptera: Curculionidae] <i>Hypera postica</i> 1329	[Orthoptera: Acrididae] <i>Melanoplus</i> 1152	[Hymenoptera: Vespidae] <i>Vespula vulgaris</i> 2997
[Homoptera: Aleyrodidae] <i>Bemisia tabaci</i> 3680	Aspergillus flavus [Diptera: Bombyliidae] Unknown species 3430	[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 1040
[Hymenoptera: Formicidae] <i>Anoplolepis longipes</i> 2161	[Diptera: Sarcophagidae] <i>Neobullieria citellivora</i> 3144	[Lepidoptera: Noctuidae] <i>Mocis</i> 590
Aphanomyces sp. [Dorylaimida: Longidoridae] <i>Xiphinema americanum</i> 2005	[Hymenoptera: Formicidae] <i>Anoplolepis longipes</i> 2157 2158 2159	<i>Spodoptera frugiperda</i> 3289
Arthrobotrys dactyloides [Tylenchida: Heteroderidae] <i>Heterodera schachtii</i> 2934	[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 1003 1010	Beauveria amorpha [Coleoptera] Unknown species 2251
	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2833	[Coleoptera: Scarabaeidae] <i>Anomala cuprea</i> 1682
	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2818	[Hymenoptera: Formicidae] <i>Solenopsis</i> 2641
Aschersonia sp. [Homoptera: Aleyrodidae] Unknown species 3014	Aspergillus niger [Orthoptera] Unknown species 3143	Beauveria bassiana [Coleoptera] Unknown species 293 301 754 1980 3197 3198 3199
[Homoptera] Unknown species 3015	Aspergillus nr. parasiticus [Coleoptera: Curculionidae] Unknown species 2173	[Coleoptera: Anthicidae] <i>Anthicus floralis</i> 157
Aschersonia aleyrodis [Homoptera: Aleyrodidae] Unknown species 430 432	Aspergillus ochraceus [Acari: Ixodidae] <i>Ixodes scapularis</i> 3325	[Coleoptera: Anthribidae] <i>Araecerus fasciculatus</i> 413
<i>Aglaia odoratissima</i> 2154	Basidiobolus haptospora [Diptera: Brachycera] Unknown species 1347	[Coleoptera: Bruchidae] <i>Caryedon serratus</i> 1186
<i>Dialeurodes ?citri</i> 341 342	Basidiobolus ranarum [Lepidoptera: Lasiocampidae] <i>Dendrolimus spectabilis</i> 1139	[Coleoptera: Carabidae] Unknown species 952 1975 3386
<i>Dialeurodes citri</i> 992	Batkoa apiculata [Diptera: Sciaridae] Unknown species 919 927 1660 1661	[Coleoptera: Cerambycidae] Unknown species 318 319 785 2557
<i>Trialeurodes vaporariorum</i> 2268	<i>Bradyisia paupera</i> 3224 3225 3226	<i>Aromia moscata</i> 1559 1560 1561 1562 1563 <i>Moechotypa diphysis</i> 1678
Aschersonia goldiana [Homoptera: Aleyrodidae] <i>Dialeurodes ?citri</i> 343	[Hymenoptera]	<i>Monochamus alternatus</i> 1679
Unknown species 431	Unknown species 395	<i>Psacothaea hilaris</i> 1041
Aschersonia inasperata [Homoptera: Aleyrodidae] <i>Dialeurodes citri</i> 2351 2356 2357 2358	Batkoa gigantea [Diptera: Tipulidae] <i>Tipula paludosa</i> 214 215 403	[Coleoptera: Chrysomelidae] Unknown species 504 751 1971
2397 2398	Batkoa major [Homoptera: Aphididae] Unknown species 1427	<i>Cerotoma</i> 951 1458 1467
Aschersonia turbinata [Homoptera] Unknown species 1030	[Homoptera: Cicadellidae] <i>Empoasca fabae</i> 2936 3102 3103	<i>Cerotoma arcuata</i> 731 732 756 931 934 2075 <i>Crimissa</i> 786 788 805
Ascospaera aggregata [Hymenoptera: Megachilidae] <i>Megachile rotundata</i> 689 690		<i>Diabrotica</i> 721 946 947 948 949 950 956 982 2512 2938 2942 3219 3287
Ascospaera apis [Hymenoptera: Apidae] <i>Apis mellifera</i> 691 692 2683		<i>Diabrotica balteata</i> 3309 <i>Diabrotica barberi</i> 2579 <i>Diabrotica paranoense</i> 739 752 758 809 937 938 <i>Diabrotica speciosa</i> 928 958 1060 1453 1454 1455 1456 1459 1460 1461
		1462 1463 1464 1465 1466 1469 1470 1471 1472 1473 1475 1476

1954 1961 2511 2515 2520 2625	<i>Sitona lineatus</i> 1156 1157 1158 1159 1160 1161 1162 1165 1167 1168	<i>Adelphocoris</i> 1516 1517 1523 1524 1525 1526 1527 1528 1529 1531
2626	1169 1170 1182 1192 1193 1194	1533 1534 1535 1536 1537 1538
<i>Diabrotica undecimpunctata</i> 201	1306	1539 1540 1635 1636 1637 1638
<i>Diabrotica virgifera</i> 2330 3111	<i>Sternechus subsignatus</i> 1450	1640 1643 1650 1789 1790 1791
<i>Galerucina</i> 2463	[Coleoptera: Elateridae]	1792 1793 1794 1795 1796 1797
<i>Leptinotarsa decemlineata</i> 149 252 317	Unknown species 150 784 804	1798 1799 1800 1801
340 344 353 384 505 506 507 509	[Coleoptera: Lagriidae]	<i>Lygus</i> 886 1394 1395 1396 1397 1404
510 534 535 1039 1079 1081 1106	<i>Lagria vilosa</i> 2961	1405 1406 1407 1408 1409 1410
1619 1620 1621 1622 1623 1624	[Coleoptera: Languriidae]	1411 1412 1413 1414 1520 1521
1704 1705 1706 1707 1708 1709	Unknown species 3457	1648 1649 1802 1803 1804 1805
1710 1711 1712 1713 1721 1722	[Coleoptera: Nitidulidae]	1806 1807 1808 1809 1810 1812
1723 1749 1750 1775 1776 1777	Unknown species 325	1813 1814 1822 2318 2319 2320
1778 1779 1780 1781 1982 2030	[Coleoptera: Pythidae]	2321 2322 2458 2462
2031 2032 2695 2987 2988 2989	<i>Pytho</i> 1854	<i>Lygus lineolaris</i> 1317 1318 1319 1320
2990 2991	[Coleoptera: Rhizophagidae]	1321 1322 1323 1324 1325
<i>Mauobupis morosi</i> 2509	<i>Rhizophagus grandis</i> 1848	<i>Lygus pratensis</i> 2461
<i>Nodonata</i> 3437 3438 3439 3441 3442	[Coleoptera: Scarabaeidae]	[Hemiptera: Nabidae]
3444 3446 3447 3450 3451 3452	<i>Ancognatha scarabacoides</i> 2249 2250	<i>Nabis</i> 1988
3455	<i>Anomala cuprea</i> 1683	[Hemiptera: Pentatomidae]
<i>Pachybrachis pallicarnis</i> 547	<i>Aphodius tasmaniae</i> 3070	Unknown species 737 944 1973 1974
<i>Paropsis charybdis</i> 3066	<i>Costelytra zealandica</i> 3055	1984
<i>Pyrrhalta luteola</i> 1509 1510 1511 1518	<i>Popillia japonica</i> 3716 3717	<i>Euschistus heros</i> 1478
1519	[Coleoptera: Scolytidae]	<i>Nezara viridula</i> 1054 1474 2011 2457
<i>Systema</i> 2079	Unknown species 1566 1567 3040	2516
[Coleoptera: Coccinellidae]	<i>Dendroctonus ponderosae</i> 1849 1853	<i>Oebalus poecilus</i> 2191
<i>Coccinella</i> 2033 2034	<i>Dendroctonus rufipennis</i> 1017	<i>Podisus</i> 1457 2519
<i>Coccinella septempunctata</i> 2580 3534	<i>Dryocoetes confusus</i> 1852	<i>Tibraca limbaticollis</i> 933
<i>Coleomegilla maculata</i> 1956	<i>Hypothenemus hampei</i> 1480 2685 2686	[Hemiptera: Rhopalidae]
<i>Cycloneda sanguinea</i> 2010	2687 2688 2689 2690 2691 2692	<i>Leptocoris</i> 560 566
[Coleoptera: Curculionidae]	2693 3443 3445 3448 3453	<i>Leptocoris oratorius</i> 1269 1270
Unknown species 930 1061 2040 3667	<i>Ips</i> 1855	[Hemiptera: Tingidae]
<i>Anthonomus grandis</i> 1966 2559 2638	[Coleoptera: Staphylinidae]	<i>Corythucha ciliata</i> 812
2639 2945 2946	Unknown species 3112	[Homoptera: Aphididae]
<i>Anthonomus musculus</i> 3037	[Coleoptera: Tenebrionidae]	Unknown species 3120 3121
<i>Aracanthus</i> 753	Unknown species 757 783 787	<i>Diuraphis noxia</i> 2861 2864 2879 2882
<i>Ceutorhynchus litura</i> 3403	[Crocodylia: Alligatoridae]	3153 3154 3155 3156 3157 3158
<i>Chalcodermus</i> 941 942 943 953	<i>Alligator mississippiensis</i> 2455	3166 3167 3168 3169
<i>Chalcodermus aeneus</i> 336 337 733 734	[Dermaptera]	<i>Myzus persicae</i> 3385 3387
735 736 738	Unknown species 796	<i>Schizaphis graminum</i> 2336 2860 2880
<i>Conotrachelus nenuphar</i> 1016	[Dermaptera: Forficulidae]	2881 2883
<i>Cosmopolites</i> 1833	<i>Forficula auricularia</i> 3018	[Homoptera: Cercopidae]
<i>Cosmopolites sordidus</i> 1483	[Diptera]	<i>Deois flavopicta</i> 806 3019
<i>Curculio caryae</i> 2676	Unknown species 1962 2454	<i>Zulia entreriana</i> 477
<i>Cyrtepistomus castaneus</i> 2270 2271	[Diptera: Anthomyiidae]	[Homoptera: Cicadellidae]
<i>Diaprepes abbreviata</i> 412 416 433	<i>Delia antiqua</i> 1864 1865 1866	Unknown species 945
<i>Geraeus senilis</i> 3310 3311	<i>Delia radicum</i> 1151	<i>Nephrotettix bipunctata cincticeps</i> 708
<i>Hypera postica</i> 1389 1398 1399 1515	[Diptera: Calliphoridae]	1553 1554 1555 1556
<i>Larinus</i> 2694	<i>Calliphora</i> 1630	<i>Nephrotettix cincticeps</i> 1098
<i>Listronotus oregonensis</i> 2983 2984	[Diptera: Muscidae]	[Homoptera: Cicadidae]
2985 2986	Unknown species 1955	Unknown species 2544
<i>Metamasius</i> 842	<i>Musca autumnalis</i> 1514	[Homoptera: Delphacidae]
<i>Metamasius hemipterus</i> 2642	<i>Musca domestica</i> 2953	<i>Nilaparvata lugens</i> 654 679 709 714
<i>Oryzophagus oryzae</i> 3098	[Diptera: Psychodidae]	717 719 2427
<i>Otiorhynchus sulcatus</i> 813 814 815	<i>Phlebotomus papatasi</i> 2972	[Homoptera: Membracidae]
1073 1074 1075 3065	[Diptera: Tachinidae]	Unknown species 3312
<i>Premnotrypes suturicallus</i> 1969	Unknown species 1150	[Homoptera: Pseudococcidae]
<i>Premnotrypes vorax</i> 2248	[Hemiptera: Coreidae]	<i>Rhizoecus</i> 2236
<i>Sitona</i> 1647 3063	<i>Leptoglossus fulvicornis</i> 3086	[Hymenoptera: ?Megachilidae]
<i>Sitona discoideus</i> 816 1153 1154 1155	[Hemiptera: Lygaeidae]	Unknown species 957
1163 1164 1171 1172 1173 1174	<i>Blissus leucopterus</i> 792 2430	[Hymenoptera: Apoidea]
1175 1176 1177 1178 1179 1180	<i>Nysius vinitor</i> 300	Unknown species 1468
1181 1183 1185 1188 1189 1190	[Hemiptera: Mesoveliidae]	[Hymenoptera: Diprionidae]
1191 1309 1311 1312 1313 1811	<i>Mesovelia mulsanti</i> 320	<i>Neodiprion pini</i> 338
1815 1816 1817 1818 1819 1820	[Hemiptera: Miridae]	[Hymenoptera: Eurytomidae]
1821	Unknown species 3449 3454 3456	<i>Bephratelloides cubensis</i> 2869
<i>Sitona humeralis</i> 1491		

Host by Fungus

[Hymenoptera: Formicidae] Unknown species 1960 2487 <i>Atta</i> 1831 3285 <i>Atta mexicana</i> 2484 2485 2486 <i>Solenopsis</i> 2722 2723 <i>Solenopsis invicta</i> 2402 2403 2404	<i>Ostrinia nubilalis</i> 501 502 533 652 1038 1121 2976 <i>Terastia meticulosalis</i> 1836	Cladosporium sp. [Homoptera: Aleyrodidae] Unknown species 3706
[Hymenoptera: Formicidae: Myrmicinae] Unknown species 1976 1977 1978 1979	[Lepidoptera: Saturniidae] Unknown species 843 <i>Schirius</i> 2962	Cladosporium cladosporioides [Acari: Tetranychidae] <i>Eotetranychus</i> 3085
[Hymenoptera: Ichneumonidae] Unknown species 156	[Lepidoptera: Stenomatinae] <i>Stenoma decora</i> 1479	[Homoptera: Aphididae] <i>Pemphigus betae</i> 3463
[Hymenoptera: Pamphiliidae] <i>Pamphilus betulae</i> 152 154	[Lepidoptera: Tortricidae] <i>Choristoneura</i> 1850 <i>Cydia pomonella</i> 151 1122 3220 <i>Lobesia botrana</i> 1107 1110	[Thysanoptera: Thripidae] <i>Thrips palmi</i> 3375
[Hymenoptera: Sphecidae] Unknown species 2545	[Neuroptera: Chrysopidae] <i>Chrysopa</i> 153	Coelomycidium simillii [Diptera: Simuliidae] <i>Simulium venustum</i> 218
[Hymenoptera: Vespidae] Unknown species 730 1953 2943 2944	[Orthoptera] Unknown species 3622	Conidiobolus sp.
[Isoptera: Rhinotermitidae] <i>Reticulitermes flavipes</i> 3041	[Orthoptera: Acrididae] Unknown species 356 357 1053 1326 1959 <i>Melanoplus</i> 3620	[Diptera: Anthomyiidae] Unknown species 2494 <i>Delia radicum</i> 2672
[Lepidoptera] Unknown species 2633 2637 2857	[Thysanoptera: Thripidae] <i>Thrips calcaratus</i> 3216	[Diptera: Ptychopteridae] <i>Ptychoptera contaminata</i> 2498
[Lepidoptera: Arctiidae] <i>Hyphantria cunea</i> 1564 1565	Beauveria brongniartii [Coleoptera] Unknown species 2660	[Homoptera: Aphididae] Unknown species 1426 <i>Aphis fabae</i> 3383
[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 302 303 304 305 718 1007 2737	[Coleoptera: Cerambycidae] <i>Niphonoclea</i> 1431 <i>Psacothea hilaris</i> 1680	<i>Brevicoryne brassicae</i> 2130 <i>Myzus persicae</i> 3384 <i>Schizaphis graminum</i> 1967
[Lepidoptera: Cossidae] <i>Cossula cossus</i> 1103 1104 1558 <i>Zeuzera pyrina</i> 1105	[Coleoptera: Scarabaeidae] <i>Anomala costata</i> 985 1676 <i>Costelytra zealandica</i> 3054 <i>Melolontha melolontha</i> 617 979 1067 1068 1069 1070 1071 1072 1076 1077	[Homoptera: Cercopidae] Unknown species 391 <i>Deois</i> 2147 <i>Deois flavopicta</i> 2148
[Lepidoptera: Hyblaeidae] <i>Hyblaea puer</i> 2597	[Homoptera: Cicadellidae] <i>Nephrotettix bipunctata cincticeps</i> 656 678	[Homoptera: Cicadellidae] <i>Nephrotettix bipunctata cincticeps</i> 605 606
[Lepidoptera: Lasiocampidae] <i>Dendrolimus spectabilis</i> 1677 <i>Malacosoma americanum</i> 1	[Hymenoptera: Formicidae] <i>Solenopsis invicta</i> 2401	[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 211 517 522 564 595 596
[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 155 299 2054 2267 2570 2571 2572 2573 2831 3404 3405 3527 3528 3529 3530	[Lepidoptera: Castniidae] <i>Castnia licus</i> 1829	<i>Sogatella furcifera</i> 604
[Lepidoptera: Lyonetiidae] <i>Leucoptera scitella</i> 1115 1117	[Lepidoptera: Pyralidae] <i>Diatraea saccharalis</i> 1830	[Hymenoptera]
[Lepidoptera: Noctuidae] Unknown species 1627 1628 1629 <i>Autographa gamma</i> 2253 2254 <i>Heliothis armigera</i> 1149 1166 <i>Heliothis virescens</i> 1314 1315 1316 1788	[Orthoptera: Acrididae] Unknown species 32	Unknown species 2193
<i>Sesamia cretica</i> 1118 <i>Spodoptera frugiperda</i> 959 3288 <i>Spodoptera littoralis</i> 1512 1513 3286	Beauveria velata [Lepidoptera] Unknown species 2998	[Hymenoptera: Formicidae] <i>Solenopsis invicta</i> 2819
[Lepidoptera: Olethreutidae] <i>Carpocapsa pomonella</i> 503	Beniowskia sp. [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2751	[Isoptera: Oniscoidea] <i>Porcellio</i> 1672
[Lepidoptera: Phycitinae] <i>Emmalocera depressella</i> 2417	Calcarisporium ovalisporum [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 1907	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2771 2772 2815 2816 3208
[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2727 2728 2729	Candida sp. [Dictyoptera: Blattellidae] <i>Blattella germanica</i> 1877 1924 1925 1926	[Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 92 93 94 147 148
[Lepidoptera: Pyralidae] <i>Chilo infuscatellus</i> 1886 <i>Chilo plejadellus</i> 326 <i>Cnaphalocrocis medinalis</i> 2041 <i>Diatraea saccharalis</i> 1484 1832 1834 2629 3020	[Dictyoptera: Blattidae] <i>Periplaneta americana</i> 1857	[Orthoptera: Tettigoniidae] Unknown species 1477
<i>Dioryctria sylvestrella</i> 1001 <i>Galleria mellonella</i> 1113 1114	Catenaria anguillulae [Dorylaimida: Longidoridae] <i>Xiphinema</i> 2015	Conidiobolus coronatus [Agaricales] <i>Volvariella volvacea</i> 1147
		[Araneida] Unknown species 567
		[Coleoptera: Curculionidae] <i>Ceutorhynchus napi</i> 1572 1573 1574 1575
		[Dacrymycetales] Unknown species 3087
		[Diptera: Psychodidae] <i>Lutzomyia</i> 3379 <i>Lutzomyia sordelli</i> 3414 3415

[Homoptera: Aphididae] <i>Acyrthosiphon pisum</i> 1738 <i>Metopolophium dirhodum</i> 2812 2813 2814	<i>Conidiobolus thrombooides</i> [Diptera] Unknown species 86 87	<i>Entomophaga</i> sp. [Diptera: Ptychopteridae] <i>Ptychoptera contaminata</i> 2535 2671
[Homoptera: Cicadellidae] Unknown species 419 421 422 <i>Empoasca fabae</i> 3109 <i>Nephrotettix bipunctata cincticeps</i> 520 597	[Diptera: Culicidae] <i>Culex pipiens pipiens</i> 70	[Homoptera: Cicadellidae] <i>Empoasca kraemerii</i> 1230 <i>Nephrotettix bipunctata cincticeps</i> 1126
[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 349 405 406 418 511 512 514 523 524 525 528 563 565 655 997 1876	[Diptera: Heliomyzidae] Unknown species 5	[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 1881
[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2730	[Homoptera: Aphididae] Unknown species 58 59 248 249 250 1006	[Orthoptera: Acrididae: Oedipodinae] <i>Aiolopus thalassinus tamulus</i> 2083
[Thysanoptera: Thripidae] <i>Frankliniella occidentalis</i> 3222	<i>Acyrthosiphon pisum</i> 100 3136 <i>Aphis fabae</i> 42 242 244 245 246 247 630 631 632 633 634 635 1735 <i>Aphis gossypii</i> 83 194 <i>Cavariella theobaldi</i> 101 102 363 1733 1734	<i>Entomophaga asiatica</i> [Orthoptera: Acrididae] Unknown species 1393 <i>Parapodisma</i> 1659
<i>Conidiobolus firmipilus</i> [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2731	<i>Diuraphis tritici</i> 2914 <i>Macrosiphum euphorbiae</i> 40 <i>Metopolophium dirhodum</i> 2828 2829 2849 2850 <i>Myzus persicae</i> 2 39 41 57 63 99 649 <i>Rhopalosiphum insertum</i> 73 <i>Schizaphis graminum</i> 2955 <i>Sitobion avenae</i> 2830 <i>Theroaphis maculata</i> 15 29 115 208 <i>Uroleucon</i> 120	<i>Entomophaga aulicae</i> [Diptera: Tipulidae] <i>Tipula</i> 393
<i>Conidiobolus lachnodes</i> [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 700	[Lepidoptera] Unknown species 1140 1656	[Lepidoptera] Unknown species 1140 1656
<i>Conidiobolus nr. coronatus</i> [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 598 599 600 1742 1743	[Homoptera: Cicadellidae] <i>Empoasca fabae</i> 3129	[Lepidoptera: Arctiidae] <i>Spilosoma niveum</i> 2372 2373 2374
[Lepidoptera: Noctuidae] <i>Mocis latipes</i> 1884	[Orthoptera: Acrididae] Unknown species 22	[Lepidoptera: Geometridae] <i>Enypia griseata</i> 2000
<i>Conidiobolus obscurus</i> [Homoptera: ?Aphididae] Unknown species 243	<i>Cordyceps</i> sp. [Coleoptera: Scarabaeidae] <i>Popillia japonica</i> 3718	<i>Lambdina fiscellaria fiscellaria</i> 1991 2900
[Homoptera: Aphididae] Unknown species 434	<i>Cordyceps heteropoda</i> [Homoptera: Cicadidae] <i>Cicadetta puer</i> 1880	<i>Lambdina fiscellaria lugubrosa</i> 1990
<i>Acyrthosiphon kondoi</i> 354 824 839 <i>Acyrthosiphon pisum</i> 832 834 1741 2504 3130 3131 3132 3133 3134 3135 3137 3138 3139 3140 3141	<i>Cordyceps militaris</i> [Lepidoptera: Geometridae] Unknown species 2416	<i>Rheumaptera hastata</i> 2899
<i>Aphis</i> 124 <i>Aphis armata</i> 133 355 <i>Brevicoryne brassicae</i> 1146 <i>Macrosiphum euphorbiae</i> 174 175 182 <i>Metopolophium dirhodum</i> 97 3092 <i>Myzus ascalonicus</i> 67 <i>Myzus persicae</i> 129 <i>Rhopalosiphum maidis</i> 3088 3089 3090 3091	<i>Crypticola clavulifera</i> [Diptera: Ceratopogonidae] <i>Forcipomyia marksae</i> 1940	[Lepidoptera: Lasiocampidae] <i>Dendrolimus spectabilis</i> 1655 <i>Malacosoma disstria</i> 3602
<i>Rhopalosiphum padi</i> 125 1131 3080 <i>Theroaphis maculata</i> 74 <i>Uroleucon</i> 121 122	<i>Culicinomyces bisporalis</i> [Diptera: Culicidae] <i>Aedes kochi</i> 1948 1949	[Lepidoptera: Noctuidae] Unknown species 3016
[Homoptera: Cicadellidae] <i>Empoasca fabae</i> 3099	<i>Culicinomyces claviger</i> [Diptera: Ceratopogonidae] <i>Forcipomyia marksae</i> 2480 2481	? <i>Heliothis</i> 251
<i>Conidiobolus osmodes</i> [Coleoptera: Curculionidae] <i>Hypera variabilis</i> 79	[Diptera: Culicidae] Unknown species 706 2622 <i>Aedes rupestris</i> 2471 2472 2473 2474 2475 2476 2477	<i>Aedia leucomelas</i> 198 998
<i>Conidiobolus pseudapiculatus</i> [Diptera: Psilidae] <i>Psila rosae</i> 2493 2496 2497 2502	<i>Anopheles amictus hilli</i> 644 645 <i>Anopheles quadrimaculatus</i> 372 582 583 584 585 <i>Culisetia inconspicua</i> 2479 <i>Culisetia inornata</i> 964	<i>Autographa gamma</i> 2363 2365
	<i>Engyodontium aranearium</i> [Araneida: Pholcidae] <i>Pholcus phalangioides</i> 2929 2935	<i>Mamestra brassicae</i> 1657 1751 2362 2367 2368 2369
		<i>Pseudaletia</i> 1999
		[Lepidoptera: Notodontidae] <i>Ellida caniplaga</i> 2903
		<i>Heterocampa</i> 2902
		<i>Heterocampa biundata</i> 2905
		<i>Heterocampa guttivitta</i> 2843 2904 3039 3212
		[Lepidoptera: Pieridae] <i>Colias erate poliographus</i> 2366
		[Lepidoptera: Saturniidae] <i>Dryocampa rubicunda</i> 2897
		[Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 51 164 165 166 167 168 172 1992 1993 1994 1995 1997 1998 2896 2898 2901
		<i>Entomophaga australiensis</i> [Homoptera: Cicadellidae] Unknown species 743
		<i>Cicadella</i> 328
		<i>Empoasca kraemerii</i> 791
		[Homoptera: Cicadidae] <i>Cicadetta puer</i> 331 365
		[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 581

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Entomophaga calopteni [Orthoptera: Acrididae] <i>Melanoplus bivittatus</i> 390 408 497 498 766 <i>Melanoplus cuneatus</i> 623 626 646 <i>Melanoplus differentialis</i> 2522 <i>Melanoplus flavidus</i> 383 <i>Melanoplus packardii</i> 625	Erynia sp. [Coleoptera: Cantharidae] Unknown species 2664 <i>Rhagonycha fulva</i> 2525 2536 2537 2538 2539 2553 2663 [Diptera] Unknown species 876 880 884 2495 [Diptera: Brachycera] Unknown species 1338 [Diptera: Chironomidae] Unknown species 2507 [Diptera: Ephydriidae] <i>?Hydrellia</i> 2097 [Homoptera: Aphididae] Unknown species 2279 <i>Brevicoryne brassicae</i> 2294 <i>Macrosiphum euphorbiae</i> 2292 <i>Theroaphis maculata</i> 1666 [Lepidoptera] Unknown species 1241 [Lepidoptera: Noctuidae] <i>Pseudoplusia includens</i> 2027 [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 983 [Lepidoptera: Tortricidae] <i>Eana argentina</i> 1143	Furia americana [Diptera] Unknown species 742 1240 1242 2192 2194 Furia crustosa [Lepidoptera] Unknown species 2906 Furia ithacensis [Diptera: Empididae] Unknown species 1339 1340 [Diptera: Rhagionidae] <i>Symporomyia hirta</i> 663 Furia neopyralidarum [Lepidoptera] Unknown species 1145 Furia pieris [Lepidoptera: Pieridae] <i>Pieris rapae</i> 781 Furia virescens [Hemiptera: Miridae] <i>Notostira elongata</i> 394 [Lepidoptera] Unknown species 427 [Lepidoptera: Noctuidae] Unknown species 470 1129
Entomophaga conglomerata [Diptera: Chironomidae] Unknown species 2273	Erynia aquatica [Diptera: Culicidae] <i>Aedes</i> 750 Unknown species 764	Fusarium sp. [Acari: Ixodidae] <i>Boophilus</i> 3296 [Coleoptera: Curculionidae] <i>Anthonomus musculus</i> 3030 3031 3032 <i>Chalcodermus aeneus</i> 2568 2569 <i>Sitona discoideus</i> 1310 [Diptera: Bibionidae] Unknown species 2252 [Diptera: Muscidae] <i>Musca domestica</i> 1522 [Diptera: Psychodidae] <i>Lutzomyia</i> 3382 [Hemiptera: Miridae] <i>Adelphocoris</i> 1307 1641 [Homoptera: Aleyrodidae] <i>Bemisia tabaci</i> 3668 3669 3670 3671 3672 3673 3674 3675 3676 3677 3678 3679
Entomophaga macleodii [Orthoptera: Acrididae] <i>Cannula pellucida</i> 496 618 619 620 621 624 628 629 765 767 768 769 773 774 777 778 779 3025 <i>Dissosteira carolina</i> 375 376 382 499	Erynia conica [Diptera: Chironomidae] Unknown species 2274 2277 2405 [Diptera: Simuliidae] Unknown species 1752 1753 2275 <i>Simulium</i> 1439	[Homoptera: Aphididae] Unknown species 3704 3707 <i>Rhopalosiphum padi</i> 2337 <i>Sitobion avenae</i> 2333 [Homoptera: Cercopidae] <i>Aenolamia postica</i> 3345 [Homoptera: Coccoidea] Unknown species 1828 <i>Coccus viridis</i> 2232 [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 687 [Homoptera: Psyllidae] <i>Heteropsylla cubana</i> 2302 2303 [Lepidoptera: Hyblaeidae] <i>Hyblaea puer</i> 2595 [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3532
Entomophaga maimaiga [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 1390 1391 1392 1400 1658 2370 2371 2775 2779 2780 3052 3053	Erynia curvispora [Diptera: Simuliidae] <i>Simulium</i> 802 Unknown species 1754	
Entomophaga praxibuli [Orthoptera: Acrididae] <i>Praxibulus</i> 840	Erynia ovispora [Diptera: Psychodidae] Unknown species 399 400	
Entomophaga tabanivora [Diptera: Tabanidae] <i>Atylotus thoracis</i> 627	Erynia rhizospora [Trichoptera] Unknown species 219 801 1440 1441 1442 1443 2276 [Trichoptera: Hydropsychidae] Unknown species 2407	
Entomophthora sp. [Homoptera: Aphididae] Unknown species 999	Erynia sciarae [Diptera: Mycetophilidae] Unknown species 1870	
Entomophthora chromaphidis [Homoptera: Aphididae] <i>Acyrtosiphon kondoi</i> 1860 1862 1863	Eryniopsis caroliniana [Diptera: Tipulidae] <i>Tipula paludosa</i> 640 641 642	
Entomophthora culicis [Diptera: Nematocera] Unknown species 387	Filobasidiella arachnophila [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2058	
Entomophthora muscae [Diptera] Unknown species 392 [Diptera: Anthomyiidae] Unknown species 2087 2088 2678 <i>Delia</i> 2089 2263 2264 2265 2266 2317 <i>Delia antiqua</i> 3074 <i>Delia platura</i> 707 <i>Delia radicum</i> 2665 2668 2670 2674 2675		
[Diptera: Calliphoridae] <i>Pollenia rufa</i> 651 [Diptera: Muscidae] <i>Musca domestica</i> 454 556 557 803 2014 2172 2542 2543 [Diptera: Psilidae] <i>Psila rosae</i> 2540 2541 [Diptera: Syrphidae] Unknown species 826 2673		
Entomophthora schizophorae [Diptera: Psilidae] <i>Psila rosae</i> 2667		

[Lepidoptera: Noctuidae] <i>Spodoptera</i> 2736 <i>Spodoptera frugiperda</i> 3300	<i>Fusarium subglutinans</i> [Hemiptera: Lophopidae] <i>Pyrilla perpusilla</i> 2143 2144	2099 2100 2101 2102 2103 2346
[Lepidoptera: Phycitinae] <i>Emmalocera depressella</i> 2418	[Homoptera: Coccidae] <i>Pulvinaria elongata</i> 2145	2420 2422 2423 2426
[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2776	[Homoptera: Psyllidae] <i>Heteropsylla incisa</i> 2301	[Homoptera: Psyllidae] <i>Heteropsylla cubana</i> 2347 2598
<i>Fusarium acuminatum</i> [Orthoptera: Acrididae] Unknown species 3218	[Lepidoptera: Pyralidae] <i>Chilo sacchariphagus indicus</i> 2142 <i>Scirpophaga excerptalis</i> 2141	
<i>Fusarium avenaceum</i> [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2060	<i>Gibellula</i> sp. [Araneida] Unknown species 569 570 1669	<i>Hirsutella gigantea</i> [Hymenoptera: Pamphiliidae] Unknown species 30
<i>Fusarium coccophilum</i> [Homoptera: Diaspididae] <i>Melanaspis obscura</i> 821 <i>Lepidosaphes</i> 2098	<i>Gibellula clavulifera</i> var. <i>alba</i> [Araneida: Salticidae] <i>Euophrys trivittata</i> 1909	[Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 177 178
<i>Fusarium lateritium</i> [Homoptera: Psyllidae] <i>Heteropsylla cubana</i> 2304	<i>Gibellula pulchra</i> [Araneida] Unknown species 1732	<i>Hirsutella guyana</i> [Homoptera: Cicadellidae] Unknown species 2352 2387
[Hymenoptera: Ichneumonidae] Unknown species 1331 1416	<i>Hirsutella</i> sp. 1 [Thysanoptera: Thripidae] <i>Taeniothrips inconsequens</i> 2939 2940	<i>Empoasca kraemerii</i> 878 879 881 882 883 2993
<i>Fusarium merismoides</i> [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2059	<i>Hirsutella</i> sp. [Acar] Unknown species 2795 2796 2797 2798 2801 2802 2803	<i>Hirsutella haptosporus</i> [Acar: Uropodina] Unknown species 2226
<i>Fusarium moniliforme</i> [Homoptera: Diaspididae] <i>Melanaspis glomerata</i> 2074	[Acar: Eriophyidae] <i>Abacarus hystrix</i> 970	<i>Hirsutella insperata</i> [Homoptera: Aleyrodidae] <i>Dialeurodes citri</i> 2396
<i>Fusarium moniliforme</i> var. <i>intermedium</i> [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 3223	[Collembola] Unknown species 2799	<i>Hirsutella nr. haptosporus</i> [Diptera: Itonididae] Unknown species 2228
<i>Fusarium nygamai</i> [Lepidoptera: Noctuidae] <i>Raghuva albipunctella</i> 2316	[Diptera: Sciomyzidae] <i>Sepedon sphegeus</i> 1551	<i>Hirsutella radiata</i> [Diptera: ?Lauxaniidae] Unknown species 1369
<i>Fusarium oxysporum</i> [Diptera: Anthomyiidae] <i>Delia radicum</i> 1371	[Hemiptera: Miridae] <i>Cyrtorhinus lividipennis</i> 2208 2209	<i>Hirsutella repens</i> [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2348 2359 2394
<i>Fusarium polyphialidicum</i> [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3692 3693 3694 3695 3696	[Homoptera: Cicadellidae] <i>Empoasca kraemerii</i> 1625 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2992	<i>Hirsutella rhossiliensis</i> [Tylenchida: Criconematidae] <i>Criconemella curvata</i> 2007 <i>Criconemella xenoplax</i> 2006 2008
<i>Fusarium sambucinum</i> [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3483	[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 568 1096	[Tylenchida: Heteroderidae] <i>Heterodera humuli</i> 2894 <i>Heterodera schachtii</i> 2788 2789 2790 2791 2792 2794 2931 2932 2933
<i>Fusarium semitectum</i> [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2053	[Homoptera: Diaspididae] <i>Nuculaspis tugeae</i> 1668	<i>Hirsutella satumaensis</i> [Lepidoptera: Pyralidae] <i>Dioryctria sylvestrella</i> 996
[Homoptera: Psyllidae] <i>Heteropsylla incisa</i> 2299 2300	[Lepidoptera] Unknown species 2581	<i>Hirsutella strigosa</i> [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2044
<i>Fusarium solani</i> [Diptera: Anthomyiidae] <i>Delia radicum</i> 1148	[Thysanoptera: Thripidae] <i>Taeniothrips inconsequens</i> 3546 3548 3553	[Homoptera: Cicadellidae] <i>Nephrotettix virescens</i> 2197
	<i>Hirsutella brownorum</i> [Acar] Unknown species 3509	<i>Hirsutella subulata</i> [Lepidoptera: Microlepidoptera] Unknown species 2227
	<i>Hirsutella citriformis</i> [Homoptera: Cixiidae] <i>Myndus crudus</i> 1035 1446	
	[Homoptera: Delphacidae] Unknown species 2428	
	<i>Nilaparvata lugens</i> 490 532 591 684 1036 1062 1063 1064 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1436 1549 1550 1837 1908 1913 1917 1918 1919	

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Hirsutella thompsonii	
[Acar]	
Unknown species 2800	
[Acar: Eriophyidae]	
<i>Acalitus vaccinii</i> 254	
<i>Colomerus novaehebridensis</i> 258 414	
<i>Eriophyes guerreronis</i> 256 257	
<i>Eriophyes sheldoni</i> 255 2459	
<i>Phyllocoptura oleivora</i> 137 241 253 259 2012 2464	
[Acar: Tarsonemidae]	
Unknown species 1947	
[Acar: Tenuipalpidae]	
<i>Dolichotetranychus floridanus</i> 3323	
Hirsutella versicolor	
[Homoptera: Membracidae]	
Unknown species 1034 1037	
Hirsutella verticilloides	
[Homoptera: Cicadellidae]	
<i>Idioscopus clypealis</i> 2599	
Humicola sp.	
[Lepidoptera: Lymantriidae]	
<i>Lymantria dispar</i> 2069	
Hymenostilbe verrucosa	
[Araneida]	
Unknown species 2002	
Lagenidium caudatum	
[Dorylaimida: Longidoridae]	
<i>Xiphinema rivesi</i> 2003	
Lagenidium giganteum	
[Diptera: Ceratopogonidae]	
<i>Forcipomyia marksae</i> 2529 2530 2531 2532 2533	
[Diptera: Culicidae]	
Unknown species 748 3326	
<i>Aedes melanimon</i> 3327	
<i>Culex tarsalis</i> 1384	
<i>Culex territans</i> 749	
<i>Culisetia melanura</i> 373	
Leptolegnia sp.	
[Dorylaimida: Longidoridae]	
<i>Xiphinema</i> 2004	
Leptolegnia chapmani	
[Diptera: Culicidae]	
<i>Culex</i> 2682	
<i>Culex pipiens quinquefasciatus</i> 2681	
<i>Mansonia titillans</i> 2562 2680	
Macrobiotophthora vermicola	
[Rhabditida: Rhabditidae]	
<i>Cruznema lambdiente</i> 650	
Massospora cicadina	
[Homoptera: Cicadidae]	
<i>Magicicada septendecim</i> 374	
Metarhizium sp.	
[Coleoptera: Curculionidae]	
Unknown species 2210 2224 2225	
[Lepidoptera: Pyralidae]	
<i>Pyrausta machaeralis</i> 2596	
[Orthoptera: Pyrgomorphidae]	
<i>Zonocerus variegatus</i> 3615 3618	

Metarhizium album	1286 1290 1300 1304 1724 1725
[Homoptera: Cicadellidae]	1726 1727 1728 1729 1744 1745
Unknown species 2081	1823 2038 2039 2421
<i>Cofana spectra</i> 2082	[Hymenoptera: Formicidae]
<i>Nephrotettix virescens</i> 1840 1941 1942 1943 2176 2178	<i>Atta sexdens rubropilosa</i> 2560
<i>Recilia dorsalis</i> 2177 2179	<i>Formica atta</i> 2510
Metarhizium anisopliae	<i>Solenopsis</i> 2561
[Coleoptera: Bruchidae]	[Isoptera]
Unknown species 932 954	Unknown species 2949 2951
[Coleoptera: Carabidae]	[Isoptera: Rhinotermitidae]
Unknown species 939 1901	<i>Coptotermes formosanus</i> 3045
[Coleoptera: Chrysomelidae]	[Lepidoptera]
<i>Cerotoma arcuata</i> 724 760 2076 2077 2635 2941	Unknown species 1094
<i>Diabrotica</i> 2513	<i>Galactica</i> 552
<i>Diabrotica speciosa</i> 1056	[Lepidoptera: Bombycidae]
[Coleoptera: Coccinellidae]	<i>Bombyx mori</i> 703
<i>Coleomegilla maculata</i> 808	[Lepidoptera: Crambidae]
[Coleoptera: Curculionidae]	Unknown species 3064
<i>Chalcodermus aeuenae</i> 725 929	[Lepidoptera: Hepialidae]
<i>Curculio caryae</i> 2575 3608	<i>Oxycanus</i> 1187
<i>Listronotus oregonensis</i> 2981	[Lepidoptera: Lyonetiidae]
<i>Myllorculus discolor</i> 3603	<i>Leucoptera scitella</i> 1116
<i>Otiorrhynchus sulcatus</i> 817 818 820 1910	[Lepidoptera: Noctuidae]
<i>Sitona discoideus</i> 819	<i>Heliothis zea</i> 1080
[Coleoptera: Elateridae]	<i>Mocis</i> 587
<i>Agriotes</i> 2107	<i>Spodoptera</i> 2735
<i>Agriotes sputator</i> 1377	[Lepidoptera: Nymphalidae]
<i>Conoderus</i> 23 1897 1903 2518	<i>Chlosyne lacinia saundersii</i> 1057 1059
[Coleoptera: Scarabaeidae]	[Lepidoptera: Olethreutidae]
Unknown species 472 683	<i>Carpocapsa pomonella</i> 1095
<i>Ancognatha scarabaeoides</i> 797	[Lepidoptera: Pyralidae]
<i>Aphodius tasmaniae</i> 346	<i>Ostrinia nubilalis</i> 1489
<i>Costelytra zealandica</i> 3056 3057	[Lepidoptera: Tortricidae]
<i>Melolontha melolontha</i> 977 1066	<i>Lobesia botrana</i> 1112
<i>Popillia japonica</i> 1046 1280 1298 1878 2548 3713 3720 3721	[Orthoptera]
<i>Rhizotrogus majalis</i> 2547	Unknown species 728
<i>Scapanes australis</i> 3604	[Orthoptera: Acrididae]
[Coleoptera: Tenebrionidae]	<i>Austracris guttulosa</i> 324
<i>Tribolium castaneum</i> 3388 3389	[Orthoptera: Gryllidae]
[Hemiptera: Pentatomidae]	Unknown species 3611
Unknown species 755	<i>Ornebius kanetataki</i> 1009
<i>Nezara viridula</i> 1055	<i>Teleogryllus commodus</i> 435 436 437 438 439 440 441 442 443 444 445 446
<i>Scutinophara coarctata</i> 1432 1435 1545 1548 2341 2342 2343	[Orthoptera: Gryllopalpidae]
<i>Tibraca limbaticollis</i> 2212 2213 2214	Unknown species 2786
[Homoptera: Cercopidae]	[Orthoptera: Tettigoniidae]
Unknown species 1045 1282 1299 1379 1382 1890 1891 1895 1899 1902 1911 1912	Unknown species 727
<i>Aenolamia varia</i> 798 3621	Metarhizium anisopliae var. anisopliae
<i>Deois</i> 2521	[Acar: Ixodidae]
<i>Deois flavopicta</i> 729 759 782 955 1044 1900 2517	<i>Boophilus</i> 3297
<i>Mahanarva posticata</i> 1896 1898 2627	[Coleoptera]
[Homoptera: Cicadellidae]	Unknown species 3210
Unknown species 2353	<i>Haphochelus marginalis</i> 3148
<i>Nephrotettix cincticeps</i> 2043	[Coleoptera: Carabidae]
<i>Nephrotettix virescens</i> 2153	Unknown species 2469
<i>Recilia dorsalis</i> 543	[Coleoptera: Chrysomelidae]
[Homoptera: Delphacidae]	<i>Diabrotica</i> 1885 2514
<i>Nilaparvata lugens</i> 455 456 457 485 486 487 488 489 576 1284 1285	<i>Diabrotica speciosa</i> 1958
Zonocerus variegatus	<i>Zygogramma bicolorata</i> 2231
	[Coleoptera: Curculionidae]
	<i>Geraeus senilis</i> 3305 3306 3308
	<i>Sternechus subsignatus</i> 1989
	[Coleoptera: Scarabaeidae]
	Unknown species 2162 2163 3479

<i>Oryctes</i> 2156 2165 2166 2167	<i>Metarhizium flavoviride</i> var. <i>minus</i> [Homoptera: Cicadellidae]	<i>Prodenia litura</i> 1014
<i>Oryctes rhinoceros</i> 538	Unknown species 2339 2948	<i>Rachiplusia ou</i> 2206
<i>Phyllophaga</i> ? <i>anzia</i> 2134 2135 2136 2137 2138 2139	<i>Nephrotettix virescens</i> 1945	<i>Rivula atimeta</i> 1756 1757 1758 1759 1760 2395
<i>Popillia japonica</i> 3329 3330 3331 3332 3333 3334 3335 3336 3337 3338 3339 3340	<i>Recilia dorsalis</i> 1546 1547 [Homoptera: Delphacidae]	<i>Spodoptera</i> 323 358 380 935
<i>Rhizotrogus majalis</i> 3108 3211	<i>Nilaparvata lugens</i> 1099 1271 1272 1273 1274 1275 1276 1277 1279 1283 1287 1288 1289 1291 1292 1293 1294 1295 1296 1297 1301 1302 1303 1305 1763 1764 1765 1766 1767 1768 1769 1770 1771 1772 1773 2037	<i>Spodoptera exigua</i> 539
<i>Strigoderma arboricola</i> 1968	[Orthoptera: Acrididae] <i>Ornithacris cavroisi</i> 3341	<i>Spodoptera frugiperda</i> 1972 3301 [Lepidoptera: Pyralidae] <i>Cnaphalocrocis medinalis</i> 1761 2174
[Diptera: Culicidae] <i>Aedes crinifer</i> 2974		
[Diptera: Ephydriidae] <i>?Hydrellia</i> 2105		
[Hemiptera: Cydnidae] <i>?Cirtonemus</i> 1952		
<i>Scaptiores castanea</i> 1448		
[Hemiptera: Pentatomidae] <i>Tibraca limbaticollis</i> 1882 1883		
[Homoptera: Cercopidae] Unknown species 3147 3307		
<i>Deois flavopicta</i> 925 1970		
<i>Deois incompleta</i> 1449		
<i>Mahanarva posticata</i> 1894		
[Homoptera: Cicadellidae] <i>Nephrotettix virescens</i> 2106		
[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2080		
[Hymenoptera: Encyrtidae] <i>Anagyrus</i> 3146		
[Lepidoptera] Unknown species 2424		
[Lepidoptera: Noctuidae] Unknown species 2140		
<i>Anticarsia gemmatalis</i> 3295		
<i>Spodoptera frugiperda</i> 3293 3294		
[Lepidoptera: Pyralidae] <i>Diatraea saccharalis</i> 3290 3291 3292		
[Orthoptera: Acrididae] <i>Schistocerca gregaria</i> 3127		
<i>Metarhizium anisopliae</i> var. <i>majus</i> [Coleoptera: Scarabaeidae] Unknown species 1858 1859		
<i>Oryctes</i> 1914		
<i>Oryctes rhinoceros</i> 978 1946 2151 3145		
<i>Xyloryctes jamaicensis</i> 297 298		
[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 988 1015		
<i>Metarhizium flavoviride</i> [Coleoptera: Curculionidae] <i>Ceutorhynchus macula-alba</i> 2133		
<i>Otiorrhynchus sulcatus</i> 1184 2024		
[Orthoptera: Acrididae] Unknown species 2023		
[Orthoptera: Pyrgomorphidae] <i>Zonocerus elegans</i> 3391		
<i>Zonocerus variegatus</i> 3606		
<i>Metarhizium flavoviride</i> var. <i>minus</i> [Homoptera: Cicadellidae]		
<i>Nephrotettix virescens</i> 1945		
<i>Recilia dorsalis</i> 1546 1547 [Homoptera: Delphacidae]		
<i>Nilaparvata lugens</i> 1099 1271 1272 1273 1274 1275 1276 1277 1279 1283 1287 1288 1289 1291 1292 1293 1294 1295 1296 1297 1301 1302 1303 1305 1763 1764 1765 1766 1767 1768 1769 1770 1771 1772 1773 2037		
<i>Mixed culture</i> [Lepidoptera: Pyralidae] <i>Corcyra cephalonica</i> 2738		
<i>Mortierella</i> sp. [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2063		
<i>Mortierella clausenii</i> [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2062		
<i>Mortierella hyalina</i> [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2061		
<i>Myriodontium keratinophilum</i> [Isoptera: Oniscoidea] <i>Porcellio</i> 368 386		
<i>Neozygites</i> sp. [Acar: Tetranychidae] <i>Tetranychus urticae</i> 662		
<i>Neozygites tetranychii</i> [Acar: Tetranychidae] <i>Tetranychus althaea</i> 2677		
<i>Nomuraea</i> sp. [Lepidoptera: Noctuidae] <i>Heliothis armigera</i> 2413		
<i>Nomuraea atypicola</i> [Araneida: ?Argiopidae] Unknown species 1904		
<i>Nomuraea rileyi</i> [Homoptera: Delphacidae] <i>Sogatella furcifera</i> 558		
[Lepidoptera] Unknown species 936 1879 1893		
[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 711		
[Lepidoptera: Lymantriidae] <i>Lymantria</i> 481 482 483		
[Lepidoptera: Noctuidae] Unknown species 135		
<i>Anticarsia gemmatalis</i> 1950 2013 2201 2202 2203 2204 2205 2207 2465 2466 2492		
<i>Mocis frugalis</i> 1762		
<i>Naranga</i> 2345		
<i>Plathypena scabra</i> 762		
<i>Plusia</i> 1047		
<i>Paecilomyces</i> sp.		
[Araneida] Unknown species 2354		
[Coleoptera: Lagriidae] <i>Lagria vilosa</i> 741		
[Diptera] Unknown species 2350 2378		
[Hemiptera: Pentatomidae] <i>Nezara viridula</i> 3101		
[Homoptera: Cicadellidae] <i>Recilia dorsalis</i> 680		
[Lepidoptera: Brassolidae] <i>Brassolis saphorae</i> 2613 2620		
[Lepidoptera: Limacodidae] <i>Natada michonta</i> 2616 2617 2618		
[Lepidoptera: Noctuidae] <i>Sesamia inferens</i> 1008		
<i>Spodoptera</i> 2546		
[Lepidoptera: Oecophoridae] <i>Anteotricha</i> 2614 2615		
[Lepidoptera: Tortricidae] <i>Epiphyas postvittana</i> 309		
<i>Paecilomyces amoenoroseus</i> [Coleoptera: Lagriidae] <i>Lagria vilosa</i> 2958 2959 2960		
[Hemiptera: Pentatomidae] <i>Tibraca limbaticollis</i> 2215		
[Homoptera: Cercopidae] <i>Deois flavopicta</i> 2078		
<i>Paecilomyces andoi</i> [Diptera: Cecidomyiidae] <i>Resseliella odai</i> 1684		
<i>Paecilomyces canadensis</i> [Coleoptera: Scarabaeidae] <i>Heptophylla picea</i> 984		
[Lepidoptera: Lasiocampidae] <i>Gastropacha orientalis</i> 990		
<i>Paecilomyces farinosus</i> [Coleoptera] Unknown species 2355		
[Coleoptera: Chrysomelidae] <i>Pyrrhalta fuscipennis</i> 1043		
<i>Pyrrhalta luteola</i> 1507 1508		
[Coleoptera: Curculionidae] <i>Otiorrhynchus sulcatus</i> 2937		
<i>Premnotypes vorax</i> 799		
[Coleoptera: Lagriidae] <i>Lagria vilosa</i> 1957		
[Coleoptera: Scarabaeidae] <i>Cylcocephala signaticollis</i> 2973		
[Diptera: Culicidae] <i>Aedes albifasciatus</i> 2971		
<i>Aedes sierrensis</i> 1939		

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Paecilomyces farinosus *Pandora delphacis*

[Diptera: Tachinidae] Unknown species 1348 1349	[Paecilomyces fumosoroseus] [Araneida] Unknown species 2376	[Paecilomyces lilacinus] [Coleoptera: Chrysomelidae] <i>Cerotoma</i> 1951
[Hemiptera: Pentatomidae] Unknown species 531 <i>Scotinophara coarctata</i> 763	[Coleoptera: Chrysomelidae] <i>Pyrrhalta luteola</i> 1506 <i>Spaethiella</i> 2956	[Coleoptera: Curculionidae] <i>Diaprepes abbreviata</i> 410
[Homoptera: Aleyrodidae] <i>Aleurocanthus woglumi</i> 2954	[Coleoptera: Lagriidae] <i>Lagria vilosa</i> 722 723 744 2216 2217 2219 2220 2221 2952	[Hemiptera: Pentatomidae] <i>Scotinophara coarctata</i> 1552
<i>Bemisia tabaci</i> 3572 3573 3574 3575 3576 3577 3578 3579 3580 3581 3582 3583 3584 3585 3586 3587 3588 3589 3590 3591 3592 3593 3594 3658 3659 3660 3661 3662 3663	[Coleoptera: Scarabaeidae] <i>Popillia japonica</i> 2679	[Homoptera: Cercopidae] <i>Deois flavopicta</i> 3481
<i>Trialeurodes vaporariorum</i> 2658	[Diptera] Unknown species 887	[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 986
[Homoptera: Psyllidae] <i>Heteropsylla incisa</i> 2175	[Diptera: ?Stratiomyidae] Unknown species 2425	[Tylenchida: Heteroderidae] <i>Meloidogyne</i> 2181 2182 2183 2184 2185 2186
[Hymenoptera: Formicidae] <i>Anoplolepis longipes</i> 2155	[Diptera: Calliphoridae] <i>Calliphora</i> 1646	[Paecilomyces marquandii] [Tylenchida: Heteroderidae] <i>Meloidogyne</i> 2233
[Hymenoptera: Tenthredinidae] <i>Pristiphora erichsonii</i> 1851	[Diptera: Muscidae] <i>Musca autumnalis</i> 1626 <i>Musca domestica</i> 1644 1645 1867 1868	[Paecilomyces reniformis] [Orthoptera: Tettigoniidae] <i>Conocephalus</i> 2340
[Lepidoptera] Unknown species 3152	[Hemiptera: Miridae] <i>Adelphocoris</i> 1530 1532	[Orthoptera: Tettigoniidae] Unknown species 429 484 577
[Lepidoptera: Arctiidae] <i>Pyrrharctia isabella</i> 3017	[Hemiptera: Pentatomidae] Unknown species 3429	[Paecilomyces tenuipes] [Lepidoptera: Noctuidae] <i>Spodoptera frugiperda</i> 2488 2489 2490 2491
[Lepidoptera: Cossidae] <i>Prionoxystus robiniae</i> 2269	[Homoptera: Aleyrodidae] <i>Bemisia</i> 3313	[Paecilomyces viridis] [Homoptera: Cicadellidae] <i>Empoasca kraemerii</i> 807
[Lepidoptera: Geometridae] <i>Lambdina athesaria</i> 3537 3538	<i>Bemisia tabaci</i> 3076 3083 3322 3408 3699 3700	[Hymenoptera: Formicidae] <i>Anoplolepis longipes</i> 2160
[Lepidoptera: Lasiocampidae] <i>Malacosoma americanum</i> 3	[Homoptera: Aphididae] Unknown species 3682	[Paecilomyces sp. nov.]
[Lepidoptera: Lymantriidae] <i>Leucoma salicis</i> 38	<i>Myzus persicae</i> 3458	[Homoptera: Diaspididae] <i>Unaspis citri</i> 3084
<i>Lymantria dispar</i> 20 648 697 2057 2131 2564 2835 3221 3490 3491 3492 3493 3494 3495 3496 3497 3498 3499 3500 3501 3502 3503 3504 3505 3506 3507 3508 3517 3518 3519 3520 3521 3522 3523 3524 3525 3526 3533 3595 3596 3597 3598 3599 3664 3665 3666	[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2198 2429	[Pandora blunckii] [Coleoptera: Elateridae] <i>Athalia rosae</i> 915 917 920 1715 1716 1717 1718
[Lepidoptera: Noctuidae] <i>Rivula atimeta</i> 2344 <i>Spodoptera</i> 2734	[Homoptera: Pseudococcidae] <i>Phenacoccus solani</i> 2247	[Lepidoptera: Plutellidae] <i>Plutella</i> 3075 <i>Plutella xylostella</i> 217 1000 2824 3200 3201 3202
[Lepidoptera: Notodontidae] <i>Quadricalcarifera punctatella</i> 1042	[Hymenoptera: Tenthredinidae] <i>Monophadnus elongatus</i> 1576	[Pandora bullata] [Diptera: Calliphoridae] <i>Phaenicia sericata</i> 116
[Lepidoptera: Nymphalidae] Unknown species 981 <i>Chlosyne lacinia saundersii</i> 1058 1065	[Lepidoptera: Arctiidae] <i>Hyphantria cunea</i> 1568 1569 1577 1578 1579	[Pandora delphacis] [Hemiptera: Miridae] Unknown species 3062
[Lepidoptera: Sesiidae] <i>Conopia myopaeformis</i> 1108	[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 989 1005	[Homoptera: Cicadellidae] Unknown species 1238 1936
[Lepidoptera: Tortricidae] <i>Cydia pomonella</i> 975	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2749	<i>Empoasca fabae</i> 3072 3093 3094 3095 3096 3106 3107
<i>Laspeyresia medicaginis</i> 1225	[Lepidoptera: Pyralidae] <i>Diaphania hyalinata</i> 3302	<i>Nephrotettix cincticeps</i> 458 459 460 461 478
<i>Lobesia botrana</i> 1111	[Paecilomyces guaensis] [Orthoptera: Gryllidae] Unknown species 2152	<i>Recilia dorsalis</i> 659 660
[Thysanoptera: Thripidae] <i>Taeniothrips inconsequens</i> 3564	[Paecilomyces javanicus] [Coleoptera: Curculionidae] <i>Litodactylus leucogaster</i> 322	[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 134 575 577 580 657 665 666 667 668 669 670 672 673 674 676 682 686 698 713 716 1124 1132 1133 1264 1268 1730 1731 2091
Paecilomyces flavovirescens	[Homoptera: Aleyrodidae] <i>Bemisia</i> 3303	
[Diptera: Cecidomyiidae] <i>Resseliella odai</i> 1686	[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 720	

<i>Sogatella furcifera</i> 593 603 2092 2093 2095 2096 2409	<i>Myzus persicae</i> 1600 2085 2086 3248 3249 3250 3251	Scopulariopsis sp. [Coleoptera: Chrysomelidae]
<i>Sogatodes pusanus</i> 2094	<i>Schizaphis graminum</i> 3366	<i>Leptinotarsa decemlineata</i> 2327
[Homoptera: Membracidae] <i>Spissistilus festinus</i> 2028 3484	<i>Sitobion</i> 1597 1604	[Coleoptera: Curculionidae] Unknown species 2169
[Lepidoptera: Noctuidae] <i>Mamestra brassicae</i> 1265	<i>Uroleucon formosanu</i> 993	[Diptera: Calliphoridae] <i>Lucilia illustris</i> 2328
Pandora dipterigena	Pandora nouyi	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2255
[Diptera] Unknown species 131 1720 1923	[Homoptera: Aphididae] Unknown species 199	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 3203
[Diptera: ?Sciariidae] Unknown species 1887	<i>Acyrtosiphon kondoi</i> 362	
[Diptera: Brachycera] Unknown species 1422	<i>Theroaphis maculata</i> 366	
[Diptera: Nematocera] Unknown species 397		
[Trichoptera] Unknown species 2406		
Pandora kondoiensis	Pandora nr. delphacis	Sorosporella sp.
[Homoptera: Aphididae] <i>Acyrtosiphon kondoi</i> 369 825 837	[Hemiptera: Miridae] Unknown species 2132	[Orthoptera: Acrididae] ?Melanoplus 377
<i>Acyrtosiphon pisum</i> 828	[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2146	
Pandora neoaphidis	Pandora nr. echinospora	Sorosporella uvella
[Hemiptera: Miridae] <i>Lygus</i> 1570	[Diptera] Unknown species 138	[Coleoptera: Curculionidae] <i>Curculio caryae</i> 1123
[Homoptera: Aphididae] Unknown species 78 381 1695 1696 2016 2298		[Orthoptera: Gryllotalpidae] <i>Scapteriscus vicinus</i> 1856
<i>Acyrtosiphon kondoi</i> 836		
<i>Acyrtosiphon pisum</i> 827 830 831 838 1598 1603 1605 1609 2017 2018 2583 2584 2585 2587 2588 2589 2591 2592 2593 2594 2754 2755 2756 2757 2758 2760 2761 2762 2763 2766 2767 2768 2769 2773 2781 2782 2783 2784 2837 2838 2839 2840 2842 2844 2845 2846 2847 2848 2851 2852 2853 2854 2855 2856 2865 2866 2867 2868 2870 2872 2873 3234 3237 3240		
<i>Aphidula</i> 1610 1615		
<i>Aphis</i> 128 3410		
<i>Aphis fabae</i> 608 609 610 611 612 613 614 636 637 638 639 1606 1611 1981 1985 2019 2020 3238 3241		
<i>Brevicoryne brassicae</i> 1613 1616 1617 1784 1785 1786 1824 1825 1826 1827 2108 2109 2110 2111 2112 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2128 2280 2293		
<i>Dactynotus formosanus</i> 1137		
<i>Diuraphis noxia</i> 3081 3082 3126 3174 3175		
<i>Hyalopterus pruni</i> 1596		
<i>Hyperomyzus lactucae</i> 829 833 835		
<i>Macrosiphum</i> 1607 1612		
<i>Macrosiphum akebiae</i> 1134		
<i>Macrosiphum euphorbiae</i> 181		
<i>Macrosiphum rosae</i> 1986 1987		
<i>Metopolophium dirhodum</i> 2874 2875 2876 3365 3367		
<i>Myzus</i> 1601 1602		
<i>Myzus nicotinae</i> 3411 3412 3459		
	Penicillium sp.	Sporothrix sp.
	[Coleoptera: Curculionidae] <i>Anthonomus musculus</i> 3036	[Thysanoptera: Thripidae] <i>Thrips tabaci</i> 3142
	<i>Chalcodermus bimaculatus</i> 2950	
	[Homoptera: Ortheziidae] <i>Orthezia praelonga</i> 2643	
	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2834 2836	
	Penicillium thomii	Sporothrix insectorum
	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2056	[Hymenoptera: Formicidae] <i>Paltothyreus tarsatus</i> 2909 2918
	Phialophora malorum	
	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2072	
	Phoma cava	
	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2071	
	Polycephalomyces formosus	
	[Coleoptera: Carabidae] <i>Calosoma</i> 1424	
	Pseudogibbellula formicarum	
	[Homoptera: Cercopidae] Unknown species 2913	
	Saprolegnia sp.	
	[Diptera: Simuliidae] Unknown species 179 180	
	Schizangiella sp.	
	[Squamata: Colubridae] <i>Elaphe</i> 2237 2239	
	Schizangiella serpentis	
	[Squamata: Viperidae] <i>Crotalus horridus</i> 203	
		Tilachlidium sp.
		[Coleoptera: Elateridae] Unknown species 2415
		Tilletiopsis sp.
		[Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 527 572 573
	Tolypocladium cylindrosporum	
	[Diptera: Bibionidae] <i>Plecia nearctica</i> 2912	
	[Diptera: Culicidae] Unknown species 961 976 1027 1028 2911	
	<i>Aedes australis</i> 841	
	<i>Aedes sierrensis</i> 705 1580	
	[Lepidoptera: Noctuidae] Unknown species 2777 2778	

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Tolypocladium extinguens [Diptera: Mycetophilidae] <i>Arachnocampa luminosa</i> 2921	[Hemiptera] Unknown species 1423	Verticillium chlamydosporium [Coleoptera: Lagriidae] <i>Lagria villosa</i> 2218
Tolypocladium niveum [Acar: Orbatidae] <i>Mycobates</i> 3278	[Homoptera: Aleyrodidae] <i>Dialeurodes citri</i> 3304	Verticillium cccosporum [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2064
[Diptera: Tachinidae] Unknown species 3281	[Homoptera: Aphididae] Unknown species 1693 1694 3122 3125 <i>Aphis fabae</i> 2022 <i>Metopolophium dirhodum</i> 3368 <i>Myzus nicotinae</i> 3239 <i>Rhopalosiphum padi</i> 3374	Verticillium fungicola [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2065
[Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 3321	[Homoptera: Cercopidae] <i>Prosapia simulans</i> 3536 <i>Zulia vilior costaricensis</i> 3535	Verticillium fusisporum [Homoptera: Aleyrodidae] <i>Trialeurodes vaporariorum</i> 923
Torrubiella homopterorum [Homoptera: Delphacidae] <i>Nilaparvata lugens</i> 2045	[Homoptera: Cicadellidae] <i>Empoasca fabae</i> 3128	Verticillium indicum [Hymenoptera: Formicidae] <i>Anoplolepis longipes</i> 2170
Torrubiella raticaudata [Araneida: Salticidae] <i>Euphrys trivittata</i> 1915 1916	[Hymenoptera: Formicidae] <i>Solenopsis invicta</i> 2640	Verticillium insectorum [Homoptera: Pseudococcidae] <i>Rhizococcus</i> 2235
Trichothecium sp. [Hemiptera: Miridae] <i>Adelphocoris</i> 1217 1223	[Hymenoptera: Ichneumonidae] <i>Cratichneumon lanius</i> 1421	Verticillium lecanii [Acar: Oribatidae]
[Homoptera: Cicadellidae] <i>Nephrotettix bipunctata cincticeps</i> 653	[Lepidoptera: Geometridae] <i>Hibernia defoliaria</i> 1415 1417 <i>Lambdina athasaria</i> 3567 3568 3569	Unknown species 1367
Trichothecium roseum [Hemiptera: Miridae] <i>Adelphocoris</i> 1212 1226 1308 1639 1642	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2752 2821	[Coleoptera: Chrysomelidae] <i>Pyrrhalta luteola</i> 1505
[Homoptera: Aleyrodidae] Unknown species 3708	[Lepidoptera: Pyralidae] <i>Cnaphalocrociis medinalis</i> 1703 <i>Diatraea saccharalis</i> 3298 3299	[Coleoptera: Curculionidae] <i>Hypera postica</i> 1328
[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2055	[Lepidoptera: Riodinidae] <i>Euselasia</i> 3467 3468	[Coleoptera: Melyridae] <i>Malachius bipustulatus</i> 1335
Unidentified [Aphelenchida: Aphelenchoididae] <i>Aphelenchoides</i> 3735	[Thysanoptera: Thripidae] <i>Frankliniella occidentalis</i> 3570 <i>Taeniothrips inconsequens</i> 3319 3560	[Coleoptera: Scarabaeidae] Unknown species 3314
[Araneida] Unknown species 1419 3209	[Trichoptera] Unknown species 3242 3243 3244	[Diptera: Culicidae] <i>Aedes triseriatus</i> 810
[Coleoptera] Unknown species 1634	Verticillium sp. [Coleoptera] Unknown species 2832	[Diptera: Psychodidae] <i>Lutzomyia saulensis</i> 3418
[Coleoptera: Chrysomelidae] <i>Leptinotarsa decemlineata</i> 3724	[Coleoptera: Curculionidae] <i>Hypera postica</i> 1401 1402 1403	[Homoptera: Aleyrodidae] Unknown species 3709
[Coleoptera: Curculionidae] <i>Aracanthus</i> 3478 <i>Otiorhynchus sulcatus</i> 3715 <i>Sternechus subsignatus</i> 3471	[Diptera] Unknown species 2414	Verticillium aphidicola [Homoptera: Aphididae] Unknown species 974 2659
[Coleoptera: Scarabaeidae] <i>Popillia japonica</i> 3714 3719 3722 <i>Rhizotrogus majalis</i> 2999	[Diptera: Tipulidae] Unknown species 2329	<i>Brevicoryne brassicae</i> 1787
[Coleoptera: Scolytidae] <i>Hypothenemus hampei</i> 3440	[Homoptera: Aphididae] <i>Myzus nr. persicae</i> 2323 2324 2325 2326	<i>Diuraphis noxia</i> 2862 2877 2878 3000
[Diptera] Unknown species 1922	<i>Sitobion avenae</i> 2332	<i>Macrosiphum euphorbiae</i> 204 2858
[Diptera: Culicidae] <i>Anopheles</i> 2563 <i>Anopheles gambiae</i> 3380 3381	[Lepidoptera] Unknown species 2822	<i>Myzus persicae</i> 1026 3324
[Diptera: Psychodidae] <i>Lutzomyia</i> 3123 3124 3378 3420 3421 3423 3424 3425 3427 3428	[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3531	<i>Pemphigus beta</i> 3464
<i>Lutzomyia longipalpis</i> 3422 <i>Lutzomyia saulensis</i> 3413 3417 3419 <i>Lutzomyia trapidoi</i> 3426	[Thysanoptera: Thripidae] <i>Taeniothrips inconsequens</i> 3547 3549 3550 3551 3552 3556 3561	<i>Rhopalosiphum nymphaeae</i> 321
[Diptera: Simuliidae] Unknown species 3227 3228 3229 3230 3231 3232 3233 3235 3236 3245 3246 3247	Verticillium ?cephalosporum [Coleoptera: Curculionidae] <i>Anthonomus musculus</i> 3035	<i>Sitobion avenae</i> 2334 2859
	Verticillium ?lecanii [Thysanoptera: Thripidae] <i>Taeniothrips inconsequens</i> 3315 3316 3317	<i>Toxoptera citricida</i> 2009 2460
	Verticillium balanoides [Aphelenchida: Aphelenchoididae] <i>Aphelenchoides</i> 3173	[Homoptera: Coccidae] Unknown species 2916
		<i>Coccus viridis</i> 1774 2149 2150
		<i>Pulvinaria floccifera</i> 980
		<i>Saissetia oleae</i> 1029
		[Homoptera: Lecaniidae] <i>lecanium viridis</i> 555
		[Homoptera: Margarodidae] <i>Icerya purchasi</i> 1033
		[Hymenoptera: Ichneumonidae] Unknown species 1330
		[Lepidoptera: Bombycidae] <i>Bombyx mori</i> 991
		[Lepidoptera: Cossidae] <i>Cossula cossus</i> 973 1102

[Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2066 3600 3601	Zoophthora radicans [Coleoptera: Curculionidae] <i>Hypera variabilis</i> 80 81	[Lepidoptera: Pieridae] <i>Pieris brassicae</i> 1341 1342 1343 1344 1345 1346
[Lepidoptera: Pyralidae] <i>Ostrinia nubilalis</i> 900	[Diptera] Unknown species 388 1337 1921 2499 2500 2501 2503 2506 2523 2554	[Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 1048 1100 2732 2893 3204 3205 3206
[Lepidoptera: Tortricidae] <i>Adoxophyes orana</i> 994	[Diptera: Anthomyiidae] <i>Delia radicum</i> 2666 3489	[Lepidoptera: Pyralidae] <i>Cnaphalocrocis medicinalis</i> 1699 2410
<i>Cydia pomonella</i> 1032 1109	[Diptera: Nematocera] Unknown species 1336 1428	[Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 21 44 45 50 52 88 141 142 143 144 145 146 163 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 407
[Thysanoptera: Thripidae] Unknown species 2923 3701	[Hemiptera: Miridae] <i>Dicyphus pallidus</i> 389	<i>Merophyas divulsana</i> 1082
<i>Frankliniella occidentalis</i> 3683 3684 3685 3686 3687 3688 3689 3690 3691	[Homoptera: Aphididae] Unknown species 195 <i>Brachycaudus amygdalinus</i> 75 <i>Capitophorus</i> 822 <i>Drepanosiphum aceris</i> 914 1130 <i>Metopolophium dirhodum</i> 2811 <i>Theroaphis maculata</i> 103 104 105 106 107 108 109 110 111 112 114 139 237 238 239 359 370 379 823	<i>Ptycholoma aeriferana</i> 1674 1675
<i>Taeniothrips inconsequens</i> 2930 3252 3253 3254 3255 3257 3258 3259 3260 3261 3262 3263 3264 3265 3266 3267 3268 3269 3270 3318 3554 3555 3557 3558 3559 3562 3563	[Homoptera: Cercopidae] Unknown species 800	<i>Tortrix viridiana</i> 68
<i>Verticillium nr. aranearum</i>	[Homoptera: Cicadellidae] Unknown species 1239 1263 1495 1587 1591 2196 2549 2551 2552	
[Araneida] Unknown species 1905	<i>Empoasca</i> 2240 2241 2242 2243 2244 2245 2246 2282 2283 2284 2285 2286 2287 2288 2289 3623	
<i>Verticillium psalliotiae</i>	<i>Empoasca fabae</i> 1018 1019 1020 1021 1261 1262 1938 2400 2550 2716 2717 2718 2719 2720 2977 2978 2979 2980 3100 3104 3105 3283 3284 3376 3377 3390	
[Homoptera: Pseudococcidae] <i>Rhizoecus</i> 2234	<i>Empoasca kraemerii</i> 789 790 1227 1228 1229 1231 1232 1233 1234 1236 1237 1492 1493 1494 1496 1497 1498 1499 1500 1501 1502 1503 1504 1541 1542 1543 1544 1581 1582 1583 1584 1585 1586 1588 1589 1590 1593 1594 1595 1928 1929 1930 1931 1932 1933 1934 1935 1937 2994 2995 2996 3002 3003 3004 3005 3006 3007 3008 3009 3010 3011 3012 3013 3026	
[Diptera: Psychodidae] <i>Lutzomyia sordelli</i> 3416	<i>Empoasca vitis</i> 2696 2700 2701 2702 2703 2706 2708 2709 2712 2713 3114 3116 3119 3149 3150 3159 3160 3162 3164 3165	
Zoophthora sp.	<i>Hauptida distinguenda</i> 2256 2257 2258 2259 2260 2261 2262	
[Dermaptera: Forficulidae] <i>Forficula auricularia</i> 3486 3487 3488	<i>Typhlocyba</i> 3115 3170 3171	
Zoophthora anglica	[Homoptera: Delphacidae] <i>Delphacodes striatella</i> 1050	
[Coleoptera: Carabidae] <i>Trechus quadristriatus</i> 1739	<i>Nilaparvata lugens</i> 685 1125 1136	
[Coleoptera: Elateridae] <i>Agriotes sputator</i> 396 2505	[Homoptera: Psyllidae] <i>Psyllida etrioza</i> 126	
[Hemiptera: Miridae] <i>Notosteira elongata</i> 916 926	<i>Triozza urticae</i> 1719	
Zoophthora aphidis	[Hymenoptera: Diprionidae] <i>Neodiprion tsugae</i> 13	
[Homoptera: Aphididae] <i>Anoecia corni</i> 425	[Lepidoptera]	
Zoophthora lanceolata	Unknown species 404	
[Diptera: Brachycera] Unknown species 468	[Lepidoptera: Geometridae] <i>Lambdina fiscellaria fiscellaria</i> 72	
[Diptera: Nematocera] Unknown species 426 469	[Lepidoptera: Noctuidae] <i>Sesamia inferens</i> 2411	
Zoophthora occidentalis		
[Homoptera: Aphididae] <i>Acyrthosiphon pisum</i> 2841 3027 3028 3029 3071 3073 <i>Macrosiphum euphorbiae</i> 207		
Zoophthora phalloides		
[Homoptera: Aphididae] <i>Brevicoryne brassicae</i> 2281 <i>Myzus rannaculinum</i> 352 <i>Theroaphis maculata</i> 351		
Zoophthora phytonomi		
[Coleoptera: Curculionidae] <i>Hypera punctata</i> 202 2188 <i>Hypera variabilis</i> 113 191 192		

Fungus by Host and Location

Acari Coleoptera: Carabidae

Animalia

Arthropoda • Arachnida

Acari

Unknown genus
USA, California
Hirsutella sp. 2795 2796 2797 2798
2801 2802 2803
Hirsutella thompsonii 2800
USA, New York
Hirsutella brownorum 3509

Acari: Eriophyidae

Abacarus hystrix
England
Hirsutella sp. 970
Acalitus vaccinii
USA, North Carolina
Hirsutella thompsonii 254
Colomerus novahebridensis
Papua New Guinea
Hirsutella thompsonii 414 258

Eriophyes guerrerensis

Ivory Coast
Hirsutella thompsonii 257

Jamaica
Hirsutella thompsonii 256

Eriophyes sheldoni

Zimbabwe
Hirsutella thompsonii 255 2459

Phyllocoptrus oleivora

Argentina
Hirsutella thompsonii 2012 2464
USA, Florida
Hirsutella thompsonii 137 241 253

USA, Texas
Hirsutella thompsonii 259

Acari: Ixodidae

Boophilus sp.
Mexico
Metarhizium anisopliae var. *anisopliae* 3297
Fusarium sp. 3296
Ixodes scapularis
Unknown country
Aspergillus ochraceus 3325

Acari: Orbatidae

Mycobates sp.
Canada, Northwest Territories
Tolypocladium niveum 3278

Acari: Oribatidae

Unknown genus
Poland
Verticillium lecanii 1367

Acari: Tarsonemidae

Unknown genus
Philippines
Hirsutella thompsonii 1947

Acari: Tenuipalpidae
Dolichotetranychus floridanus
Costa Rica
Hirsutella thompsonii 3323

Acari: Tetranychidae
Eotetranychus sp.
USA, Florida
Cladosporium cladosporioides 3085
Tetranychus althaeae
Czechoslovakia
Neozygites tetranychii 2677
Tetranychus urticae
USA, North Carolina
Neozygites sp. 662

Acari: Uropodina
Unknown genus
Poland
Hirsutella haplosporus 2226

Araneida
Unknown genus
Unknown country
Unidentified 3209
France
Gibellula sp. 1669
Indonesia, Bali
Gibellula sp. 570
Indonesia, Sumatera Utara
Conidiobolus coronatus 567
Indonesia, Sumatera Utara, Sumatra
Gibellula sp. 569
Philippines
Paecilomyces fumosoroseus 2376
Paecilomyces sp. 2354
Poland
Unidentified 1419
Solomon Islands
Verticillium nr. *aranearum* 1905
Sri Lanka
Gibellula pulchra 1732
USA, New York
Hymenostilbe verrucosa 2002

Araneida: ?Argiopidae
Unknown genus
Solomon Islands
Nomuraea atypicola 1904

Araneida: Pholcidae
Pholcus phalangioides
USA, Ohio
Engyodontium aranearum 2929
2935

Araneida: Salticidae
Euphydryas trivittata
Solomon Islands
Gibellula clavulifera var. *alba* 1909
Torrubiella raticaudata 1915 1916

Arthropoda • Entognatha

Collembola
Unknown genus
USA, California
Hirsutella sp. 2799

Arthropoda • Insecta

Unknown genus
Unknown country
Beauveria bassiana 293
Brazil, Goiás
Beauveria bassiana 754
Brazil, Pará
Beauveria amorphia 2251
France
Beauveria bassiana 1980
Unidentified 1634
India
Beauveria brongniartii 2660
Metarhizium anisopliae var. *anisopliae* 3210
Mexico
Verticillium sp. 2832
Philippines
Beauveria bassiana 3197 3198 3199
Paecilomyces farinosus 2355
Poland
Beauveria bassiana 301
Haphochelus marginalis
France
Metarhizium anisopliae var. *anisopliae* 3148

Coleoptera: Anthicidae
Anthicus floralis
Poland
Beauveria bassiana 157

Coleoptera: Anthribidae
Araecerus fasciculatus
USA, Florida
Beauveria bassiana 413

Coleoptera: Bruchidae
Unknown genus
Brazil, Mato Grosso
Metarhizium anisopliae 954
Brazil, Goiás
Metarhizium anisopliae 932
Caryedon serratus
France
Beauveria bassiana 1186

Coleoptera: Cantharidae
Unknown genus
Denmark
Erynia sp. 2664
Rhagonycha fulva
Denmark
Erynia sp. 2525 2536 2537 2538
2539 2553 2663

Coleoptera: Carabidae
Unknown genus
Brazil, Goiás
Metarhizium anisopliae 939
Brazil, Mato Grosso
Beauveria bassiana 952
Brazil, Pará
Metarhizium anisopliae 1901
France
Beauveria bassiana 1975

Mexico	<i>Crimissa</i> sp.	<i>Leptinotarsa decemlineata</i>
<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2469	Brazil, Ceará	Unknown country
USA, Washington	<i>Beauveria bassiana</i> 786 788 805	Unidentified 3724
<i>Beauveria bassiana</i> 3386		Canada, Québec
<i>Calosoma</i> sp.	<i>Diabrotica</i> sp.	<i>Beauveria bassiana</i> 2987 2988 2989
Poland	Brazil	2990 2991
<i>Polycephalomyces formosus</i> 1424	<i>Beauveria bassiana</i> 3219	Commonwealth of Independent States
<i>Trechus quadrifasciatus</i>	Brazil, Amazonas	<i>Beauveria bassiana</i> 2695
England	<i>Beauveria bassiana</i> 2512	
<i>Zoophthora anglica</i> 1739	Brazil, Goiás	France
<i>Coleoptera: Cerambycidae</i>	<i>Beauveria bassiana</i> 956 2938 2942	<i>Beauveria bassiana</i> 149 384 1982
Unknown genus	<i>Metarhizium anisopliae</i> 2513	<i>Scopulariopsis</i> sp. 2327
Brazil, Ceará	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1885 2514	Germany
<i>Beauveria bassiana</i> 785	Brazil, Mato Grosso	<i>Beauveria bassiana</i> 340
Ecuador	<i>Beauveria bassiana</i> 946 947 948 949	Italy
<i>Beauveria bassiana</i> 2557	950 982	<i>Beauveria bassiana</i> 1106
Mexico	Colombia	USA, Maine
<i>Beauveria bassiana</i> 319	<i>Beauveria bassiana</i> 721	<i>Beauveria bassiana</i> 252 353
USA, Rhode Island	Mexico	USA, New York
<i>Beauveria bassiana</i> 318	<i>Beauveria bassiana</i> 3287	<i>Beauveria bassiana</i> 534 535 1039
<i>Aromia moscata</i>	<i>Diabrotica balteata</i>	1081 1619 1620 1621 1622 1623
Italy	Mexico	1624 1704 1705 1706 1707 1708
<i>Beauveria bassiana</i> 1559 1560 1561	<i>Beauveria bassiana</i> 3309	1709 1710 1711 1712 1713 1721
1562 1563	<i>Diabrotica barberi</i>	1722 1723 1749 1750 1775 1776
<i>Moechotypa diphysis</i>	USA, South Dakota	1777 1778 1779 1780 1781 2030
Japan	<i>Beauveria bassiana</i> 2579	2031 2032
<i>Beauveria bassiana</i> 1678	<i>Diabrotica paranaense</i>	USA, Rhode Island
<i>Monochamus alternatus</i>	Brazil, Goiás	<i>Beauveria bassiana</i> 317
Japan	<i>Beauveria bassiana</i> 739 752 758 809	USA, Washington
<i>Beauveria bassiana</i> 1679	Brazil, Mato Grosso	<i>Beauveria bassiana</i> 344 1079
<i>Niphonoclea</i> sp.	<i>Beauveria bassiana</i> 937 938	Yugoslavia
Philippines	<i>Diabrotica speciosa</i>	<i>Beauveria bassiana</i> 505 506 507 510
<i>Beauveria brongniartii</i> 1431	Argentina	Yugoslavia, Croatia
<i>Psacothea hilaris</i>	<i>Beauveria bassiana</i> 2515	<i>Beauveria bassiana</i> 509
Japan	Brazil, Alagoas	<i>Mauobius morosi</i>
<i>Beauveria brongniartii</i> 1680	<i>Beauveria bassiana</i> 1954	Argentina
<i>Beauveria bassiana</i> 1041	Brazil, Bahia	<i>Beauveria bassiana</i> 2509
<i>Coleoptera: Chrysomelidae</i>	<i>Beauveria bassiana</i> 1961	<i>Nodonata</i> sp.
Unknown genus	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1958	Costa Rica
Brazil, Goiás	Brazil, Goiás	<i>Beauveria bassiana</i> 3437 3438 3439
<i>Beauveria bassiana</i> 1971	<i>Beauveria bassiana</i> 928 1476 2625	3441 3442 3444 3446 3447 3450
Vietnam	2626	3451 3452 3455
<i>Beauveria bassiana</i> 751	Brazil, Paraná	<i>Pachybrachis pallicornis</i>
Yugoslavia, Serbia	<i>Beauveria bassiana</i> 958 1060 1453	Malaysia
<i>Beauveria bassiana</i> 504	1454 1455 1461 1462 1463 1466	<i>Beauveria bassiana</i> 547
<i>Cerotoma</i> sp.	1469 2511 2520	<i>Paropsis charybdis</i>
Brazil, Mato Grosso	<i>Metarhizium anisopliae</i> 1056	New Zealand
<i>Beauveria bassiana</i> 951	Brazil, Rio Grande do Sul	<i>Beauveria bassiana</i> 3066
Brazil, Paraná	<i>Beauveria bassiana</i> 1456 1459 1460	<i>Pyrrhalta fuscipennis</i>
<i>Beauveria bassiana</i> 1458	1464 1465 1475	Japan
Brazil, Rio de Janeiro	Brazil, Santa Catarina	<i>Paecilomyces farinosus</i> 1043
<i>Paecilomyces lilacinus</i> 1951	<i>Beauveria bassiana</i> 1470 1471 1472	<i>Pyrrhalta luteola</i>
Brazil, Santa Catarina	1473	France
<i>Beauveria bassiana</i> 1467	<i>Diabrotica undecimpunctata</i>	<i>Beauveria bassiana</i> 1509 1510 1511
<i>Cerotoma arcuata</i>	USA, Oregon	1518 1519
Brazil, Amazonas	<i>Beauveria bassiana</i> 201	<i>Paecilomyces farinosus</i> 1507 1508
<i>Beauveria bassiana</i> 731 732 756	<i>Diabrotica virgifera</i>	<i>Paecilomyces fumosoroseus</i> 1506
Brazil, Bahia	USA, Nebraska	<i>Verticillium lecanii</i> 1505
<i>Beauveria bassiana</i> 2075	<i>Beauveria bassiana</i> 3111	<i>Spaethiella</i> sp.
Brazil, Goiás	Mexico	Brazil, Amazonas
<i>Beauveria bassiana</i> 931 934	<i>Beauveria bassiana</i> 2330	<i>Paecilomyces fumosoroseus</i> 2956
<i>Metarhizium anisopliae</i> 724 760	<i>Galerucina</i> sp.	<i>Systena</i> sp.
2076 2077 2635 2941	France	Brazil, Goiás
	<i>Beauveria bassiana</i> 2463	<i>Beauveria bassiana</i> 2079

Fungus by Host and Location

Coleoptera: Chrysomelidae
Coleoptera: Curculionidae

<i>Zyogramma bicolorata</i> India Metarhizium anisopliae var. anisopliae 2231	<i>Ceutorhynchus napi</i> Switzerland Conidiobolus coronatus 1572 1573 1574 1575	<i>Hypera variabilis</i> Israel Conidiobolus osmodes 79 Zoophthora phytonomi 113 191 192 Zoophthora radicans 80 81
Coleoptera: Coccinellidae	<i>Chalcodermus sp.</i>	<i>Larinus sp.</i>
<i>Coccinella sp.</i> USA, New York <i>Beauveria bassiana</i> 2033 2034	Brazil, Mato Grosso <i>Beauveria bassiana</i> 941 942 943 953	Switzerland <i>Beauveria bassiana</i> 2694
<i>Coccinella septempunctata</i> Unknown country <i>Beauveria bassiana</i> 3534	<i>Chalcodermus aeneus</i> Brazil, Goiás <i>Beauveria bassiana</i> 733 734 735 736 738	<i>Listronotus oregonensis</i> Canada, Québec <i>Beauveria bassiana</i> 2983 2984 2985 2986
USA, Michigan <i>Beauveria bassiana</i> 2580	Metarhizium anisopliae 725 929	<i>Metarhizium anisopliae</i> 2981
<i>Coleomegilla maculata</i> Brazil, Alagoas <i>Beauveria bassiana</i> 1956	USA, Georgia <i>Beauveria bassiana</i> 336 337	<i>Litodactylus leucogaster</i> USA, Florida <i>Paecilomyces javanicus</i> 322
Brazil, Goiás Metarhizium anisopliae 808	Fusarium sp. 2568 2569	<i>Metamasius sp.</i> Colombia <i>Beauveria bassiana</i> 842
<i>Cycloneda sanguinea</i> Argentina <i>Beauveria bassiana</i> 2010	<i>Chalcodermus bimaculatus</i> Brazil, Goiás Penicillium sp. 2950	<i>Metamasius hemipterus</i> Brazil, Paraná <i>Beauveria bassiana</i> 2642
Coleoptera: Curculionidae	<i>Conotrachelus nenuphar</i> Unknown country <i>Beauveria bassiana</i> 1016	<i>Myllorherus discolor</i> India Metarhizium anisopliae 3603
Unknown genus Indonesia Metarhizium sp. 2224	<i>Cosmopolites sp.</i> Brazil <i>Beauveria bassiana</i> 1833	<i>Oryzophagus oryzae</i> Brazil, Rio Grande do Sul <i>Beauveria bassiana</i> 3098
USA, New York <i>Beauveria bassiana</i> 3667	<i>Cosmopolites sordidus</i> Brazil, Espírito Santo <i>Beauveria bassiana</i> 1483	<i>Otiorhynchus sulcatus</i> Unknown country Unidentified 3715
Unknown genus Brazil, Goiás <i>Beauveria bassiana</i> 930	<i>Curculio caryae</i> USA Metarhizium anisopliae 3608	France <i>Beauveria bassiana</i> 813 814 815 1073 1074 1075
Brazil, Paraná <i>Beauveria bassiana</i> 1061	USA, Arkansas Sorosporella uvella 1123	Metarhizium anisopliae 817 818 820 Metarhizium flavoviride 1184 2024
Indonesia, Sulawesi Selatan, Celebes Aspergillus nr. parasiticus 2173	USA, Georgia <i>Beauveria bassiana</i> 2676	Germany Metarhizium anisopliae 1910
Metarhizium sp. 2210 2225	USA, South Carolina Metarhizium anisopliae 2575	New Zealand <i>Beauveria bassiana</i> 3065
Korea <i>Beauveria bassiana</i> 2040	<i>Cyrtepistomus castaneus</i> USA, Kentucky <i>Beauveria bassiana</i> 2271 2270	USA, Oregon <i>Paecilomyces farinosus</i> 2937
Papua New Guinea Scopulariopsis sp. 2169	<i>Diaprepes abbreviata</i> Unknown country <i>Beauveria bassiana</i> 433	<i>Premnotypes suturicallus</i> Peru <i>Beauveria bassiana</i> 1969
<i>Anthonomus grandis</i> Brazil <i>Beauveria</i> sp. 1835	USA, Florida <i>Beauveria bassiana</i> 412 416	<i>Premnotypes vorax</i> Colombia <i>Beauveria bassiana</i> 2248 <i>Paecilomyces farinosus</i> 799
Brazil, São Paulo <i>Beauveria bassiana</i> 1966 2559 2638 2639 2945 2946	<i>Paecilomyces lilacinus</i> 410	Shirahoshizo insidiosus Japan <i>Beauveria</i> sp. 1681
<i>Anthonomus musculus</i> USA, Massachusetts <i>Beauveria bassiana</i> 3037	<i>Geraeus senilis</i> Mexico <i>Beauveria bassiana</i> 3310 3311	<i>Sitona sp.</i> France <i>Beauveria bassiana</i> 1647
Penicillium sp. 3036 Verticillium <i>cephalosporum</i> 3035	Metarhizium anisopliae var. anisopliae 3305 3306 3308	New Zealand <i>Beauveria bassiana</i> 3063
USA, New Jersey Fusarium sp. 3030 3031 3032	<i>Hypera postica</i> France Acremonium furcatum 1372	<i>Sitona discoideus</i> France <i>Beauveria bassiana</i> 816 1185 1191
<i>Aracanthus</i> sp. Brazil, Rio Grande do Sul Unidentified 3478	Aphanocladium album 1329	Metarhizium anisopliae 819
Brazil, Ceará <i>Beauveria bassiana</i> 753	Beauveria bassiana 1389 1398 1399 1515	Morocco <i>Beauveria bassiana</i> 1153 1154 1155 1163 1164 1171 1172 1173 1174
<i>Ceuthorhynchus litura</i> Unknown country <i>Beauveria bassiana</i> 3403	Beauveria sp. 1327	1175 1176 1177 1178 1179 1180
<i>Ceuthorhynchus macula-alba</i> Czechoslovakia Metarhizium flavoviride 2133	Verticillium lecanii 1328	1181 1183 1188 1189 1190 1309
	Verticillium sp. 1401 1402 1403	
	<i>Hypera punctata</i> USA, New York Zoophthora phytonomi 202	
	USA, Delaware Zoophthora phytonomi 2188	

1311 1312 1313 1811 1815 1816 1817 1818 1819 1820 1821	<i>Coleoptera: Languriidae</i> Unknown genus Costa Rica <i>Beauveria bassiana</i> 3457	<i>Heptophysa picea</i> Japan <i>Paecilomyces canadensis</i> 984
<i>Fusarium</i> sp. 1310		<i>Lachnostenra morosa</i> Japan <i>Beauveria</i> sp. 1685
<i>Sitona humeralis</i> France <i>Beauveria bassiana</i> 1491		<i>Melolontha melolontha</i> France <i>Beauveria bronniartii</i> 617 979
<i>Sitona lineatus</i> France <i>Beauveria bassiana</i> 1156 1157 1158 1159 1160 1161 1162 1165 1167 1168 1169 1170 1182 1192 1193 1194 1306	<i>Coleoptera: Melyridae</i> <i>Malachius bipustulatus</i> Poland <i>Verticillium lecanii</i> 1335	<i>Metarhizium anisopliae</i> 977
<i>Sternechus subsignatus</i> Brazil, Paraná <i>Beauveria bassiana</i> 1450 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1989	<i>Coleoptera: Nitidulidae</i> Unknown genus Australia <i>Beauveria bassiana</i> 325	Switzerland <i>Beauveria bronniartii</i> 1067 1068 1069 1070 1071 1072 1076 1077 <i>Metarhizium anisopliae</i> 1066
Brazil, Rio Grande do Sul Unidentified 3471	<i>Coleoptera: Pythidae</i> <i>Pytho</i> sp. Canada, British Columbia <i>Beauveria bassiana</i> 1854	<i>Oryctes</i> sp. Papua New Guinea <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2156 2165 2166 2167
Coleoptera: Elateridae	<i>Coleoptera: Rhizophagidae</i> <i>Rhizophagus grandis</i> Belgium <i>Beauveria bassiana</i> 1848	Philippines <i>Metarhizium anisopliae</i> var. <i>majus</i> 1914
Unknown genus Brazil, Ceará <i>Beauveria bassiana</i> 784 804	<i>Coleoptera: Scarabaeidae</i> Unknown genus	<i>Oryctes rhinoceros</i> France <i>Metarhizium anisopliae</i> var. <i>majus</i> 978 3145
France <i>Beauveria bassiana</i> 150	Australia <i>Metarhizium anisopliae</i> 472	Indonesia, Jawa Barat, Java <i>Metarhizium anisopliae</i> var. <i>majus</i> 2151
Japan <i>Tilachlidium</i> sp. 2415	Brazil, Federal District <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3479	Philippines <i>Metarhizium anisopliae</i> var. <i>majus</i> 1946
<i>Agriotes</i> sp. USA, Oregon <i>Metarhizium anisopliae</i> 2107	Papua New Guinea <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2162 2163	Thailand <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 538
<i>Agriotes sputator</i> Denmark <i>Zophthora anglica</i> 2505	Poland <i>Metarhizium anisopliae</i> var. <i>majus</i> 1858 1859	<i>Phyllophaga ranzia</i> Canada <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2134 2135 2136 2137 2138 2139
<i>Zophthora anglica</i> 2505	PR China <i>Metarhizium anisopliae</i> 683	<i>Popillia japonica</i> Unknown country <i>Beauveria bassiana</i> 3716 3717 <i>Cordyceps</i> sp. 3718 3714 3719
Switzerland <i>Metarhizium anisopliae</i> 1377	USA, Vermont <i>Verticillium lecanii</i> 3314	Japan <i>Metarhizium anisopliae</i> 1046
<i>Zophthora anglica</i> 396	<i>Ancognatha scarabaeoides</i> Colombia <i>Beauveria bassiana</i> 2249 2250 <i>Metarhizium anisopliae</i> 797	Portugal <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3329 <i>Paecilomyces fumosoroseus</i> 2679
<i>Athalia rosae</i> Switzerland <i>Pandora blunckii</i> 915 917 920 1715 1716 1717 1718	<i>Anomala costata</i> Japan <i>Beauveria bronniartii</i> 985 1676	USA, Connecticut <i>Metarhizium anisopliae</i> 3713 3720 3721 Unidentified 3722
<i>Conoderus</i> sp. New Zealand <i>Metarhizium anisopliae</i> 2518	<i>Anomala cuprea</i> Japan <i>Beauveria bassiana</i> 1683 <i>Beauveria amorpha</i> 1682	USA, New York <i>Metarhizium anisopliae</i> 1280 1298 1878 2548
USA <i>Metarhizium anisopliae</i> 1903	<i>Aphodius tasmaniae</i> Australia <i>Metarhizium anisopliae</i> 346	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3330 3331 3332 3333 3334 3335 3336 3337 3338 3339 3340
USA, California <i>Metarhizium anisopliae</i> 1897	New Zealand <i>Beauveria bassiana</i> 3070	<i>Rhizotrogus majalis</i> USA, New York <i>Metarhizium anisopliae</i> 2547 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3108 3211
USA, North Carolina <i>Metarhizium anisopliae</i> 23	<i>Costelytra zealandica</i> New Zealand <i>Beauveria bassiana</i> 3055 <i>Beauveria bronniartii</i> 3054 <i>Metarhizium anisopliae</i> 3056 3057	Unidentified 2999
Coleoptera: Lagriidae	<i>Cylcocephala signaticolis</i> Argentina <i>Paecilomyces farinosus</i> 2973	
<i>Lagria villosa</i> Brazil, Alagoas <i>Paecilomyces farinosus</i> 1957		
Brazil, Goiás <i>Beauveria bassiana</i> 2961 <i>Paecilomyces amoenoroseus</i> 2958 2959 2960		
<i>Paecilomyces fumosoroseus</i> 722 723 744 2216 2217 2219 2220 2221 2952		
<i>Paecilomyces</i> sp. 741		
<i>Verticillium chlamydosporium</i> 2218		

Fungus by Host and Location

Coleoptera: Scarabaeidae
Diptera: Calliphoridae

<i>Scapanes australis</i> Papua New Guinea <i>Metarhizium anisopliae</i> 3604	Dermoptera: Forficulidae <i>Forficula auricularia</i> Brazil, Federal District <i>Beauveria bassiana</i> 3018	Diptera: ?Stratiomyidae Unknown genus Indonesia, Jawa Barat, Java <i>Paecilomyces fumosoroseus</i> 2425
<i>Strigoderma arboricola</i> USA, Michigan <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1968	Denmark <i>Zoophthora</i> sp. 3486 3487 3488	Diptera: Anthomyiidae Unknown genus Denmark
<i>Xyloryctes jamaicensis</i> India <i>Beauveria</i> sp. 2412	Dictyoptera: Blattellidae <i>Blattella germanica</i> Unknown country <i>Candida</i> sp. 1924 1925 1926	<i>Conidiobolus</i> sp. 2494 <i>Entomophthora muscae</i> 2678
Western Samoa <i>Metarhizium anisopliae</i> var. <i>majus</i> 297 298	USA, Maryland <i>Candida</i> sp. 1877	France <i>Entomophthora muscae</i> 2087 2088
Coleoptera: Scolytidae Unknown genus Switzerland <i>Beauveria bassiana</i> 1566 1567	Dictyoptera: Blattidae <i>Periplaneta americana</i> USA, Louisiana <i>Candida</i> sp. 1857	<i>Delia</i> sp. France <i>Entomophthora muscae</i> 2089 2263 2264 2265 2266 2317
USA, Hawaii <i>Beauveria bassiana</i> 3040	Diptera Unknown genus Brazil, Bahia <i>Beauveria bassiana</i> 1962	<i>Delia antiqua</i> France <i>Beauveria bassiana</i> 1864 1865 1866
<i>Dendroctonus ponderosae</i> Canada, British Columbia <i>Beauveria bassiana</i> 1853 1849	Brazil, Ceará <i>Erynia</i> sp. 876 880 884	USA, New York <i>Entomophthora muscae</i> 3074
<i>Dendroctonus rufipennis</i> Canada, British Columbia <i>Beauveria bassiana</i> 1017	Brazil, Goiás <i>Furia americana</i> 742 2192 2194	<i>Delia platura</i> England <i>Entomophthora muscae</i> 707
<i>Dryocoetes confusus</i> Canada, British Columbia <i>Beauveria bassiana</i> 1852	Brazil, Paraná <i>Furia americana</i> 1240 1242	<i>Delia radicum</i> Canada, Québec <i>Beauveria bassiana</i> 1151
<i>Hypothenemus hampei</i> Brazil, São Paulo <i>Beauveria bassiana</i> 1480	Denmark <i>Erynia</i> sp. 2495	<i>Fusarium oxysporum</i> 1371
Kenya <i>Beauveria bassiana</i> 2685 2686 2687	<i>Zoophthora radicans</i> 2499 2500	<i>Fusarium solani</i> 1148
Mexico <i>Beauveria bassiana</i> 2693	2501 2503 2506 2523 2554	Denmark <i>Conidiobolus</i> sp. 2672
Nicaragua <i>Beauveria bassiana</i> 3443 3445 3448	France <i>Paecilomyces fumosoroseus</i> 887	<i>Entomophthora muscae</i> 2665 2668
3453 Unidentified 3440	India <i>Verticillium</i> sp. 2414	2670 2674 2675
Togo <i>Beauveria bassiana</i> 2688 2689 2690	Indonesia, Yogyakarta, Java <i>Paecilomyces</i> sp. 2350 2378	<i>Strongwellsea castrans</i> 3282 3485
2691 2692	Israel <i>Pandora</i> nr. <i>echinospora</i> 138	<i>Zoophthora radicans</i> 2666 3489
<i>Ips</i> sp. Canada, British Columbia <i>Beauveria bassiana</i> 1855	Poland <i>Conidiobolus thrombooides</i> 86 87	Diptera: Bibionidae
Coleoptera: Staphylinidae Unknown genus USA, Nebraska <i>Beauveria bassiana</i> 3112	<i>Zoophthora radicans</i> 1337	Unknown genus France
Coleoptera: Tenebrionidae Unknown genus Brazil, Ceará <i>Beauveria bassiana</i> 757 783 787	Sri Lanka <i>Beauveria bassiana</i> 2454	<i>Fusarium</i> sp. 2252
<i>Tribolium castaneum</i> USA, Washington <i>Metarhizium anisopliae</i> 3388 3389	Switzerland <i>Entomophthora muscae</i> 392	<i>Plecia nearctica</i> USA, Florida
Dermoptera Unknown genus Colombia <i>Beauveria bassiana</i> 796	<i>Pandora dipterigena</i> 1720	<i>Tolypocladium cylindrosporum</i> 2912
	<i>Zoophthora radicans</i> 388	Diptera: Bombyliidae
	USA, Maine <i>Pandora dipterigena</i> 131	Unknown genus Costa Rica
	USA, New York <i>Pandora dipterigena</i> 1923	<i>Aspergillus flavus</i> 3430
	Unidentified 1922	Diptera: Brachycera
	<i>Zoophthora radicans</i> 1921	Unknown genus France
	Diptera: ?Lauxaniidae Unknown genus Poland <i>Hirsutella radiata</i> 1369	<i>Zoophthora lanceolata</i> 468
	Diptera: ?Sciariidae Unknown genus USA, New York <i>Pandora dipterigena</i> 1887	Poland <i>Basidiobolus haptospora</i> 1347
		<i>Erynia</i> sp. 1338
		<i>Pandora dipterigena</i> 1422
		Diptera: Calliphoridae
		<i>Calliphora</i> sp. France
		<i>Paecilomyces fumosoroseus</i> 1646
		<i>Beauveria bassiana</i> 1630
		<i>Lucilia illustris</i> France
		<i>Scopulariopsis</i> sp. 2328

<i>Phaenicia sericata</i>	<i>Aedes melanimon</i>	Diptera: Heliomyzidae
USA, Massachusetts	USA, California	Unknown genus
<i>Pandora bullata</i> 116	<i>Lagenidium giganteum</i> 3327	USA, Maine
<i>Pollenia rufis</i>	<i>Aedes rupestris</i>	<i>Conidiobolus thromboides</i> 5
USA, New York	Australia	
<i>Entomophthora muscae</i> 651	<i>Culicinomyces clavisporus</i> 2471	Diptera: Itonididae
Diptera: Cecidomyiidae	2472 2473 2474 2475 2476 2477	Unknown genus
<i>Resseliella odai</i>	<i>Aedes sierrensis</i>	Poland
Japan	USA, California	<i>Hirsutella nr. haptosporus</i> 2228
<i>Paecilomyces flavovirescens</i> 1686	<i>Paecilomyces farinosus</i> 1939	
<i>Paecilomyces andoi</i> 1684	<i>Tolyphocladium cylindrosporum</i> 705	Diptera: Muscidae
Diptera: Ceratopogonidae	1580	Unknown genus
<i>Dasyhelea</i> sp.	<i>Aedes triseriatus</i>	Brazil, Alagoas
Australia	USA, Kentucky	<i>Beauveria bassiana</i> 1955
<i>Culicinomyces clavisporus</i> 2478	<i>Verticillium lecanii</i> 810	<i>Musca autumnalis</i>
<i>Forcipomyia marksae</i>	<i>Anopheles</i> sp.	France
Australia	USA, Florida	<i>Beauveria bassiana</i> 1514
<i>Crypticola clavulifera</i> 1940	Unidentified 2563	<i>Paecilomyces fumosoroseus</i> 1626
<i>Culicinomyces clavisporus</i> 2480	<i>Anopheles amictus hilli</i>	<i>Musca domestica</i>
2481	Australia	Denmark
<i>Lagenidium giganteum</i> 2529 2530	<i>Culicinomyces clavisporus</i> 645 644	<i>Entomophthora muscae</i> 2542 2543
2531 2532 2533	<i>Anopheles gambiae</i>	France
Diptera: Chironomidae	Mali	<i>Fusarium</i> sp. 1522
Unknown genus	Unidentified 3380 3381	<i>Paecilomyces fumosoroseus</i> 1644
England	<i>Anopheles quadrimaculatus</i>	1645 1867 1868
<i>Erynia conica</i> 2405	USA, North Carolina	USA, California
<i>Erynia</i> sp. 2507	<i>Culicinomyces clavisporus</i> 372 582	<i>Entomophthora muscae</i> 2172
USA, New York	583 584 585	USA, New York
<i>Entomophaga conglomerata</i> 2273	<i>Culex</i> sp.	<i>Beauveria bassiana</i> 2953
<i>Erynia conica</i> 2274 2277	USA, Florida	<i>Entomophthora muscae</i> 454 556 557
Diptera: Culicidae	<i>Leptolegnia chapmanii</i> 2682	803 2014
Unknown genus	<i>Culex pipiens pipiens</i>	Diptera: Mycetophilidae
Australia	Czechoslovakia	Unknown genus
<i>Culicinomyces clavisporus</i> 2622	<i>Conidiobolus thromboides</i> 70	Unknown country
Colombia	<i>Culex pipiens quinquefasciatus</i>	<i>Erynia sciarae</i> 1870
<i>Lagenidium giganteum</i> 3326	USA, South Carolina	<i>Arachnocampa luminosa</i>
Czechoslovakia	<i>Leptolegnia chapmanii</i> 2681	New Zealand
<i>Tolyphocladium cylindrosporum</i> 961	<i>Culex tarsalis</i>	<i>Tolyphocladium extinguens</i> 2921
New Zealand	USA, California	
<i>Tolyphocladium cylindrosporum</i> 976	<i>Lagenidium giganteum</i> 1384	Diptera: Nematocera
1027 1028 2911	<i>Culex territans</i>	Unknown genus
USA, New York	USA, Louisiana	Poland
<i>Erynia aquatica</i> 764	<i>Lagenidium giganteum</i> 749	<i>Zoophthora radicans</i> 1336 1428
USA, North Carolina	<i>Culiseta inconspicua</i>	Switzerland
<i>Culicinomyces clavisporus</i> 706	Australia	<i>Entomophthora culicis</i> 387
<i>Lagenidium giganteum</i> 748	<i>Culicinomyces clavisporus</i> 2479	<i>Pandora dipterigena</i> 397
<i>Aedes</i> sp.	<i>Culiseta inornata</i>	<i>Zoophthora lanceolata</i> 426 469
USA, New York	Canada, Alberta	
<i>Erynia aquatica</i> 750	<i>Culicinomyces clavisporus</i> 964	Diptera: Psilidae
<i>Aedes albifasciatus</i>	<i>Culiseta melanura</i>	<i>Psila rosae</i>
Argentina	USA, North Carolina	Denmark
<i>Paecilomyces farinosus</i> 2971	<i>Lagenidium giganteum</i> 373	<i>Conidiobolus pseudapiculatus</i> 2493
<i>Aedes australis</i>	<i>Mansonia titillans</i>	2496 2497 2502
New Zealand	USA, Florida	<i>Entomophthora muscae</i> 2540 2541
<i>Tolyphocladium cylindrosporum</i> 841	<i>Leptolegnia chapmanii</i> 2680 2562	<i>Entomophthora schizophorae</i> 2667
<i>Aedes crinifer</i>	Diptera: Empididae	
Argentina	Unknown genus	Diptera: Psychodidae
<i>Metarhizium anisopliae</i> var. <i>aniso-</i>	Poland	Unknown genus
<i>pliae</i> 2974	<i>Furia ithacensis</i> 1340 1339	Switzerland
<i>Aedes kochi</i>	Diptera: Ephydriidae	<i>Erynia ovispora</i> 399 400
Australia	? <i>Hydrellia</i> sp.	<i>Lutzomyia</i> sp.
<i>Culicinomyces bisporalis</i> 1948 1949	Indonesia, Jawa Barat, Java	Costa Rica
	<i>Metarhizium anisopliae</i> var. <i>aniso-</i>	Unidentified 3123 3124 3420 3421
	<i>pliae</i> 2105	3423 3424 3425 3427 3428
	<i>Erynia</i> sp. 2097	Guatemala
		<i>Conidiobolus coronatus</i> 3379
		<i>Fusarium</i> sp. 3382 3378

Fungus by Host and Location

Diptera: Psychodidae
Hemiptera: Miridae

<i>Lutzomyia longipalpis</i> Costa Rica Unidentified 3422	Diptera: Syrphidae Unknown genus Denmark <i>Entomophthora muscae</i> 2673	Hemiptera: Miridae Unknown genus Costa Rica <i>Beauveria bassiana</i> 3449 3454 3456
<i>Lutzomyia saulensis</i> Costa Rica Unidentified 3413 3417 3419	USA, New York <i>Entomophthora muscae</i> 826	Indonesia, Jawa Barat, Java <i>Pandora nr. delphacis</i> 2132
<i>Verticillium lecanii</i> 3418		USA, New York <i>Pandora delphacis</i> 3062
<i>Lutzomyia sordelli</i> Costa Rica <i>Conidiobolus coronatus</i> 3414 3415	Diptera: Tabanidae <i>Atylotus thoracis</i> USA, New York <i>Entomophaga tabanivora</i> 627	<i>Adelphocoris</i> sp. Austria <i>Beauveria bassiana</i> 1533 1534 1535
<i>Verticillium psalliotiae</i> 3416		1536 1537 1538 1539 1540 1635
<i>Lutzomyia trapidoi</i> Costa Rica Unidentified 3426	Diptera: Tachinidae Unknown genus Canada, New Brunswick <i>Tolyocladium niveum</i> 3281	1636 1637 1638 1640 1643
<i>Phlebotomus papatasii</i> England <i>Beauveria bassiana</i> 2972	France <i>Beauveria bassiana</i> 1150	<i>Fusarium</i> sp. 1641
	Poland <i>Paecilomyces farinosus</i> 1348 1349	<i>Trichothecium roseum</i> 1639 1642
Diptera: Ptychopteridae <i>Ptychoptera contaminata</i> Denmark <i>Conidiobolus</i> sp. 2498 2535 2671	Diptera: Tipulidae Unknown genus France <i>Verticillium</i> sp. 2329	France <i>Beauveria bassiana</i> 1516 1517 1523
Diptera: Rhagionidae <i>Symporomyia hirta</i> USA, New York <i>Furia ithacensis</i> 663	<i>Tipula</i> sp. Switzerland <i>Entomophaga aulicae</i> 393	1524 1650 1789 1790 1791 1792
Diptera: Sarcophagidae <i>Neobullieria citellivora</i> Canada, Alberta <i>Aspergillus flavus</i> 3144	<i>Tipula paludosa</i> Switzerland <i>Batkoaa gigantea</i> 214 215 403 <i>Eryniopsis caroliniana</i> 640 641 642	1793 1794 1795 1796 1797 1798
Diptera: Sciaridae Unknown genus Switzerland <i>Batkoaa apiculata</i> 919 927 1660 1661	Hemiptera Unknown genus Poland Unidentified 1423	1799 1800 1801
<i>Bradyis paupera</i> Denmark <i>Batkoaa apiculata</i> 3224 3225 3226	Hemiptera: Coreidae <i>Leptoglossus fulvicornis</i> USA, Florida <i>Beauveria bassiana</i> 3086	Italy <i>Beauveria bassiana</i> 1525 1526 1527
Diptera: Sciomyzidae <i>Sepedon sphegeus</i> Philippines <i>Hirsutella</i> sp. 1551	Hemiptera: Cydnidae ? <i>Cirtonemus</i> sp. Brazil, Goiás <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1952	1528 1529 1531
Diptera: Simuliidae Unknown genus Canada, Québec Unidentified 3227 3228 3229 3230 3231 3232 3233 3235 3236 3245 3246 3247	<i>Scaptiores castanea</i> Brazil, Goiás <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1448	<i>Beauveria</i> sp. 1195 1196 1197 1198
Switzerland <i>Erynia conica</i> 1752 1753 <i>Erynia curvispora</i> 1754	Hemiptera: Lophopidae <i>Pyrrilla perpusilla</i> India <i>Fusarium subglutinans</i> 2143 2144	1199 1200 1201 1202 1203 1204
USA, Maine <i>Saprolegnia</i> sp. 179 180	Hemiptera: Lygaeidae <i>Blissus leucopterus</i> USA, Kansas <i>Beauveria bassiana</i> 792 2430	1205 1206 1207 1208 1209 1210
USA, New York <i>Erynia conica</i> 2275	<i>Nysius vinitor</i> Australia <i>Beauveria bassiana</i> 300	1211 1213 1214 1215 1216 1218
<i>Simulium</i> sp. England <i>Erynia conica</i> 1439	Hemiptera: Mesoveliidae <i>Mesovelvia mulsanti</i> USA, Florida <i>Beauveria bassiana</i> 320	1219 1220 1221 1222 1224 1307
USA, New York <i>Erynia curvispora</i> 802		<i>Paecilomyces fumosoroseus</i> 1530
<i>Simulium venustum</i> USA, Maine <i>Coelomycidium simulii</i> 218		1532
		<i>Trichothecium roseum</i> 1212 1226
		1308
		<i>Trichothecium</i> sp. 1217 1223
		<i>Cyrtorhinus lividipennis</i>
		Philippines <i>Hirsutella</i> sp. 2208 2209
		<i>Dicyphus pallidus</i>
		Switzerland <i>Zoophthora radicans</i> 389
		<i>Lygus</i> sp.
		France <i>Beauveria bassiana</i> 1394 1395 1396
		1397 1404 1405 1406 1407 1408
		1409 1410 1411 1412 1413 1414
		1520 1521 1648 1649 2318 2319
		2320 2321 2322 2458 2462
		Greece <i>Beauveria bassiana</i> 1802 1803 1812
		1822
		Spain <i>Beauveria bassiana</i> 886 1804 1805
		1806 1807 1808 1809 1810 1813
		1814
		USA, New York <i>Pandora neoaphidis</i> 1570
		<i>Lygus</i> sp.
		France <i>Beauveria bassiana</i> 1317 1318 1319
		1320 1321 1322 1323 1324 1325
		<i>Lygus pratensis</i>
		France <i>Beauveria bassiana</i> 2461
		<i>Notosteira elongata</i>
		Switzerland <i>Furia virescens</i> 394
		<i>Zoophthora anglica</i> 916 926

Hemiptera: Nabidae

Nabis sp.
Austria
Beauveria bassiana 1988

Hemiptera: Pentatomidae

Unknown genus
Austria
Beauveria bassiana 1973 1974
Brazil, Amazonas
Metarhizium anisopliae 755
Brazil, Goiás
Beauveria bassiana 737
Brazil, Mato Grosso
Beauveria bassiana 944
Costa Rica
Paecilomyces fumosoroseus 3429
France
Beauveria bassiana 1984
Malaysia
Paecilomyces farinosus 531

Euschistus heros
Brazil, Goiás
Beauveria bassiana 1478
Nezara viridula
Argentina
Beauveria bassiana 2011 2457 2516
Brazil, Paraná
Beauveria bassiana 1054
Metarhizium anisopliae 1055
Brazil, Santa Catarina
Beauveria bassiana 1474
Brazil, São Paulo
Paecilomyces sp. 3101
Oebalus poecilus
Brazil, Goiás
Beauveria bassiana 2191
Podisus sp.

Brazil, Paraná
Beauveria bassiana 1457 2519
Scotinophara coarctata
Malaysia
Paecilomyces farinosus 763
Paecilomyces lilacinus 1552
Philippines
Metarhizium anisopliae 1432 1435
1545 1548 2341 2342 2343
Tibraca limbaticollis
Brazil, Goiás
Beauveria bassiana 933
Metarhizium anisopliae 2212 2213
2214
Metarhizium anisopliae var. *anisopliae* 1882 1883
Paecilomyces amoenoroseus 2215

Hemiptera: Rhopalidae

Leptocoris sp.
Indonesia, Lombok Island
Beauveria bassiana 560
Indonesia, Yogyakarta, Java
Beauveria bassiana 566
Leptocoris oratorius
Philippines
Beauveria bassiana 1269 1270

Hemiptera: Tingidae

Corythucha ciliata
France
Beauveria bassiana 812

Homoptera

Unknown genus
Colombia
Aschersonia turbinata 1030
Unknown genus
Mexico
Aschersonia sp. 3015

Homoptera: ?Aphidiidae

Unknown genus
Poland
Conidiobolus obscurus 243

Homoptera: Aleyrodidae

Unknown genus
Mexico
Aschersonia sp. 3014
Nepal
Cladosporium sp. 3706 3711
Spain
Sterile mycelium 3710
Trichothecium roseum 3708
Verticillium lecanii 3709
USA, Florida
Aschersonia aleyrodis 430 432
Aschersonia goldiana 431

Aglaia odoratissima
Indonesia, Jawa Barat, Java
Aschersonia aleyrodis 2154
Aleurocanthus woglumi
USA, Florida
Paecilomyces farinosus 2954

Bemisia sp.
Mexico
Paecilomyces fumosoroseus 3313
Paecilomyces javanicus 3303

Bemisia tabaci
Unknown country
Paecilomyces fumosoroseus 3408
India
Aspergillus sp. 3698
Paecilomyces fumosoroseus 3699
3700

Mexico
Fusarium sp. 3672 3676 3677 3679
USA, California

Fusarium sp. 3668 3669 3670 3671
3673 3674 3675 3678
Paecilomyces farinosus 3658 3659
3660 3661 3662 3663

USA, Florida
Aphanocladium album 3680
Paecilomyces fumosoroseus 3076
3083 3322

USA, Texas
Paecilomyces farinosus 3572 3573
3574 3575 3576 3577 3578 3579
3580 3581 3582 3583 3584 3585
3586 3587 3588 3589 3590 3591
3592 3593 3594

Dialeurodes ?citri

USA, Florida
Aschersonia aleyrodis 341 342
Aschersonia goldiana 343

Dialeurodes citri

Indonesia, Yogyakarta, Java
Aschersonia insperata 2351 2397
2398

Japan
Aschersonia aleyrodis 992

Mexico
Unidentified 3304

Philippines
Aschersonia insperata 2356 2357
2358 2396

Trialeurodes vaporariorum

Netherlands
Aschersonia aleyrodis 2268
Poland
Verticillium lecanii 972

Sweden
Verticillium fusisporum 923
USA, Florida
Paecilomyces farinosus 2658

Homoptera: Aphidiidae

Unknown genus
Australia
Pandora neoaphidis 381
Commonwealth of Independent States
Conidiobolus thrombooides 58 59 248
249 250

France
Beauveria bassiana 3120 3121
Conidiobolus obscurus 434
Unidentified 3122 3125

India
Verticillium lecanii 2659
Israel
Pandora neoaphidis 78
Zoophthora radicans 195

Japan
Conidiobolus thrombooides 1006
Entomophthora sp. 999
Pakistan

Fusarium sp. 3704 3707 3703 3705
3712

USA, Florida
Paecilomyces fumosoroseus 3682
USA, Maine
Pandora nouri 199

Venezuela
Verticillium lecanii 974

Yugoslavia
Conidiobolus sp. 1426
Pandora neoaphidis 1695
Unidentified 1693 1694

Yugoslavia, Belgrade
Batkoia major 1427
Erynia sp. 2279
Pandora neoaphidis 1696 2016 2298

Acyrthosiphon kondoi

Australia
Conidiobolus obscurus 354 824 839
Entomophthora chromaphidis 1860
1862 1863

Fungus by Host and Location

Homoptera: Aphididae

<i>Pandora kondoiensis</i> 369 825 837	Poland	<i>Drepanosiphum aceris</i>
<i>Pandora neoaphidis</i> 836		Switzerland
<i>Pandora nouri</i> 362		<i>Zoophthora radicans</i> 1130 914
<i>Acyrtosiphon pisum</i>		<i>Hyalopterus pruni</i>
Australia		Unknown country
<i>Conidiobolus obscurus</i> 834		<i>Pandora neoaphidis</i> 1596
<i>Pandora kondoiensis</i> 828		<i>Hyperomyzus lactucae</i>
<i>Pandora neoaphidis</i> 827 830 831		Australia
838		<i>Pandora neoaphidis</i> 829 835
Commonwealth of Independent States		Chile
<i>Conidiobolus thrombooides</i> 100		<i>Pandora neoaphidis</i> 833
Denmark		<i>Macrosiphum</i> sp.
<i>Conidiobolus obscurus</i> 2504		France
England		<i>Pandora neoaphidis</i> 1607 1612
<i>Conidiobolus coronatus</i> 1738		<i>Macrosiphum akebiae</i>
France		Japan
<i>Pandora neoaphidis</i> 1598 1605 1609		<i>Pandora neoaphidis</i> 1134
Lab. manipulation		<i>Macrosiphum euphorbiae</i>
<i>Conidiobolus obscurus</i> 832 1741		USA, Idaho
Spain		<i>Verticillium lecanii</i> 2858
<i>Pandora neoaphidis</i> 1603		USA, Maine
USA, Idaho		<i>Conidiobolus obscurus</i> 174 175 182
<i>Pandora neoaphidis</i> 3240		<i>Conidiobolus thrombooides</i> 40
USA, New York		<i>Pandora neoaphidis</i> 181
<i>Conidiobolus obscurus</i> 3130 3131		<i>Verticillium lecanii</i> 204
3132 3133 3134 3135 3137 3138		<i>Zoophthora occidentalis</i> 207
3139 3140 3141		Yugoslavia, Belgrade
<i>Conidiobolus thrombooides</i> 3136		<i>Erynia</i> sp. 2292
<i>Pandora neoaphidis</i> 2583 2584 2585		<i>Macrosiphum rosae</i>
2587 2588 2589 2591 2592 2593		France
2594 2754 2755 2756 2757 2758		<i>Pandora neoaphidis</i> 1987 1986
2760 2761 2762 2763 2766 2767		<i>Metopolophium dirhodum</i>
2768 2769 2773 2781 2782 2783		France
2784 2837 2838 2839 2840 2842		<i>Conidiobolus obscurus</i> 97
2844 2845 2846 2847 2848 2851		USA, Idaho
2852 2853 2854 2855 2856 2865		<i>Conidiobolus coronatus</i> 2812 2813
2866 2867 2868 2870 2872 2873		2814
<i>Zoophthora occidentalis</i> 2841 3027		<i>Conidiobolus thrombooides</i> 2828
3028 3029 3071 3073		2829 2849 2850
USA, Washington		<i>Pandora neoaphidis</i> 2874 2875 2876
<i>Pandora neoaphidis</i> 3234 3237		3365 3367
Yugoslavia, Voyvodina		Unidentified 3368
<i>Pandora neoaphidis</i> 2017 2018		<i>Zoophthora radicans</i> 2811
<i>Anoecia corni</i>		USA, Montana
Switzerland		<i>Conidiobolus obscurus</i> 3092
<i>Zoophthora aphidis</i> 425		<i>Myzus</i> sp.
<i>Aphidula</i> sp.		Spain
France		<i>Pandora neoaphidis</i> 1602 1601
<i>Pandora neoaphidis</i> 1615 1610		<i>Myzus ascalonicus</i>
<i>Aphis</i> sp.		France
Canada, Québec		<i>Conidiobolus obscurus</i> 67
<i>Conidiobolus obscurus</i> 124		<i>Myzus nicotiae</i>
<i>Pandora neoaphidis</i> 128		USA, Kentucky
USA, Washington		<i>Pandora neoaphidis</i> 3411 3412 3459
<i>Pandora neoaphidis</i> 3410		Unidentified 3239
<i>Aphis armata</i>		<i>Myzus persicae</i>
France		Unknown country
<i>Conidiobolus obscurus</i> 355 133		<i>Paecilomyces fumosoroseus</i> 3458
<i>Aphis fabae</i>		Commonwealth of Independent States
England		<i>Conidiobolus thrombooides</i> 63 99
<i>Conidiobolus thrombooides</i> 42 1735		India
France		<i>Verticillium lecanii</i> 1026
<i>Pandora neoaphidis</i> 1606 1611 1981		Portugal
1985		<i>Pandora neoaphidis</i> 1600
		Spain
		<i>Pandora neoaphidis</i> 2085 2086

USA, Arkansas	<i>Verticillium</i> sp. 2332	Brazil, Mato Grosso
<i>Pandora neoaphidis</i> 3248 3249 3250		<i>Conidiobolus</i> sp. 2147
3251		<i>Deois flavopicta</i>
USA, California	<i>Theroaphis maculata</i>	Brazil
<i>Verticillium lecanii</i> 3324	<i>Zoophthora radicans</i> 359 370 823	<i>Metarhizium anisopliae</i> 2517
USA, Florida	Australia	Brazil, Bahia
<i>Conidiobolus thrombooides</i> 39	<i>Zoophthora radicans</i> 103 104 105	<i>Metarhizium anisopliae</i> 1900
USA, Maine	106 107 108 109 110 111 112 114	Brazil, Espírito Santo
<i>Conidiobolus obscurus</i> 129	139	<i>Metarhizium anisopliae</i> 1044
<i>Conidiobolus thrombooides</i> 2 41 57	Mexico	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 925
USA, Washington	<i>Zoophthora phalloides</i> 351	Brazil, Federal District
<i>Beauveria bassiana</i> 3385 3387	<i>Zoophthora radicans</i> 379	<i>Beauveria bassiana</i> 3019
<i>Conidiobolus</i> sp. 3384	USA	<i>Paecilomyces lilacinus</i> 3481
USA, Wisconsin	<i>Pandora nouri</i> 366	Brazil, Goiás
<i>Conidiobolus thrombooides</i> 649	USA, California	<i>Beauveria bassiana</i> 806
<i>Myzus rannaculinum</i>	<i>Conidiobolus thrombooides</i> 15 29 115	<i>Metarhizium anisopliae</i> 729 759 782
France	208	955
<i>Zoophthora phalloides</i> 352	USA, Illinois	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1970
<i>Myzus nr. persicae</i>	<i>Erynia</i> sp. 1666	<i>Paecilomyces amoenoroseus</i> 2078
France	USA, New York	Brazil, Mato Grosso
<i>Verticillium</i> sp. 2323 2324 2325	<i>Zoophthora radicans</i> 237 238 239	<i>Conidiobolus</i> sp. 2148
2326	<i>Toxoptera citricida</i>	<i>Deois incompleta</i>
<i>Pemphigus betae</i>	Argentina	Brazil, Pará
USA, Arizona	<i>Verticillium lecanii</i> 2460 2009	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1449
<i>Cladosporium cladosporioides</i> 3463	Uroleucon sp.	<i>Mahanarva posticata</i>
<i>Verticillium lecanii</i> 3464	Canada, Québec	Brazil, Bahia
<i>Rhopalosiphum insertum</i>	<i>Conidiobolus obscurus</i> 121 122	<i>Metarhizium anisopliae</i> 1896 1898
France	<i>Conidiobolus thrombooides</i> 120	<i>Metarhizium anisopliae</i> 1894
<i>Conidiobolus thrombooides</i> 73	<i>Uroleucon formosanus</i>	Brazil, Pernambuco
<i>Rhopalosiphum maidis</i>	Japan	<i>Metarhizium anisopliae</i> 2627
USA, Montana	<i>Pandora neoaphidis</i> 993	<i>Prosapia simulans</i>
<i>Conidiobolus obscurus</i> 3088 3089	Homoptera: Cercopidae	Costa Rica
3090 3091	Unknown genus	Unidentified 3536
<i>Rhopalosiphum nymphaceae</i>	Brazil	<i>Zulia enteriana</i>
USA, Florida	<i>Metarhizium anisopliae</i> 1899 1902	Brazil, Mato Grosso
<i>Verticillium lecanii</i> 321	1911	<i>Beauveria bassiana</i> 477
<i>Rhopalosiphum padi</i>	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3147	<i>Zulia vilior costarricensis</i>
Canada, Québec	Brazil, Bahia	Costa Rica
<i>Conidiobolus obscurus</i> 125	<i>Metarhizium anisopliae</i> 1045 1282	Unidentified 3535
Japan	1299 1379 1382	Homoptera: Cicadellidae
<i>Conidiobolus obscurus</i> 1131	Brazil, Pará	Unknown genus
South Africa	<i>Metarhizium anisopliae</i> 1890 1891	Brazil, Goiás
Unidentified 3374	1895	<i>Entomophaga australiensis</i> 743
USA, Colorado	Ghana	<i>Pandora delphacis</i> 1238 1936
<i>Conidiobolus obscurus</i> 3080	<i>Pseudogibellula formicarum</i> 2913	<i>Zoophthora radicans</i> 1495 1587
USA, Idaho	Mexico	1591 2196
<i>Fusarium</i> sp. 2337	<i>Metarhizium anisopliae</i> 1912	Brazil, Mato Grosso
<i>Schizaphis graminum</i>	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3307	<i>Beauveria bassiana</i> 945
Canada, Alberta	Switzerland	Brazil, Paraná
<i>Conidiobolus thrombooides</i> 2955	<i>Conidiobolus</i> sp. 391	<i>Zoophthora radicans</i> 1239
USA, Idaho	USA, New York	Brazil, São Paulo
<i>Beauveria bassiana</i> 2336 2860 2880	<i>Zoophthora radicans</i> 800	<i>Metarhizium flavoviride</i> var. <i>minus</i>
2881 2883	<i>Aenolamia postica</i>	2948
<i>Pandora neoaphidis</i> 3366	Costa Rica	India
USA, Michigan	<i>Fusarium</i> sp. 3345	Sterile mycelium 3702
<i>Conidiobolus</i> sp. 1967	<i>Aenolamia varia</i>	Japan
<i>Sitobion</i> sp.	Colombia	<i>Zoophthora radicans</i> 1263
France	<i>Metarhizium anisopliae</i> 798	Philippines
<i>Pandora neoaphidis</i> 1604	Trinidad and Tobago	<i>Conidiobolus coronatus</i> 419 421 422
Unknown country	<i>Metarhizium anisopliae</i> 3621	<i>Hirsutella guyana</i> 2352 2387
<i>Pandora neoaphidis</i> 1597	<i>Deois</i> sp.	<i>Metarhizium anisopliae</i> 2353
<i>Sitobion avenae</i>	Brazil, Paraná	
USA, Idaho	<i>Metarhizium anisopliae</i> 2521	
<i>Conidiobolus thrombooides</i> 2830		
<i>Fusarium</i> sp. 2333 2863		
<i>Verticillium lecanii</i> 2334 2859		

Fungus by Host and Location

<i>Metarhizium album</i>	2081
<i>Metarhizium flavoviride</i> var. <i>minus</i>	2339
USA, Illinois	
<i>Zoophthora radicans</i>	2549 2551
2552	
<i>Cicadella</i> sp.	
Australia	
<i>Entomophaga australiensis</i>	328
<i>Cofana spectra</i>	
Indonesia, Sulawesi Utara, Celebes	
<i>Metarhizium album</i>	2082
<i>Empoasca</i> sp.	
Israel	
<i>Zoophthora radicans</i>	3623
Yugoslavia	
<i>Zoophthora radicans</i>	2282 2283
2284 2285 2288 2289	
Yugoslavia, Belgrade	
<i>Zoophthora radicans</i>	2240 2241
2242 2243 2244 2245 2246 2286	
2287	
<i>Empoasca fabae</i>	
Unknown country	
<i>Zoophthora radicans</i>	2400
USA, Illinois	
<i>Zoophthora radicans</i>	1938 2550
2716 2717 2718 2719 2720 3283	
3284	
USA, Michigan	
<i>Zoophthora radicans</i>	2977 2978
2979 2980	
USA, New York	
<i>Batko major</i>	2936 3102 3103
<i>Conidiobolus coronatus</i>	3109
<i>Conidiobolus obscurus</i>	3099
<i>Conidiobolus thrombooides</i>	3129
<i>Pandora delphacis</i>	3072 3093 3094
3095 3096 3106 3107	
Unidentified	3128
<i>Zoophthora radicans</i>	3100 3104
3105 3376 3377 3390	
USA, Wisconsin	
<i>Zoophthora radicans</i>	1018 1019
1020 1021 1261 1262	
<i>Empoasca kraemerii</i>	
Brazil	
<i>Paecilomyces viridis</i>	807
<i>Zoophthora radicans</i>	3026
Brazil, Ceará	
<i>Hirsutella guyana</i>	2993
<i>Hirsutella</i> sp.	2644 2645 2646 2647
2648 2649 2650 2651 2652 2653	
2654 2655 2656 2657 2992	
Brazil, Goiás	
<i>Entomophaga</i> sp.	1230 1625
<i>Zoophthora radicans</i>	789 790 1492
1493 1494 1496 1497 1498 1499	
1500 1501 1502 1503 1504 1541	
1542 1543 1544 1581 1582 1583	
1584 1585 1586 1588 1589 1590	
1593 1594 1595 1928 1929 1930	
1931 1932 1933 1934 1935 1937	
Brazil, Rio Grande do Norte	
<i>Entomophaga australiensis</i>	791

Homoptera: Cicadellidae

Homoptera: Delphacidae

<i>Hirsutella guyana</i>	878 879 881 882
883	
Brazil, Rio Grande do Sul	
<i>Zoophthora radicans</i>	1227
Brazil, Santa Catarina	
<i>Zoophthora radicans</i>	1228 1229
1231 1232 1233 1234 1236 1237	
Brazil, São Paulo	
<i>Zoophthora radicans</i>	2994 2995
2996 3002 3003 3004 3005 3006	
3007 3008 3009 3010 3011 3012	
3013	
<i>Empoasca vitis</i>	
Unknown country	
<i>Zoophthora radicans</i>	3162
Yugoslavia	
<i>Zoophthora radicans</i>	2703 2709
2712 3114 3116	
Yugoslavia, Belgrade	
<i>Zoophthora radicans</i>	2696 2700
2701 2702 2706 2708 2713 3119	
3149 3150 3159 3160 3164 3165	
<i>Hauptida distinguenda</i>	
France	
<i>Zoophthora radicans</i>	2256 2257
2258 2259 2260 2261 2262	
<i>Idioscopus clypealis</i>	
Philippines	
<i>Hirsutella verticilloides</i>	2599
<i>Nephrotettix bipunctata cincticeps</i>	
Indonesia, Sulawesi Selatan, Celebes	
<i>Conidiobolus coronatus</i>	597
<i>Conidiobolus</i> sp.	605 606
Japan	
<i>Beauveria bassiana</i>	1553 1554 1555
1556	
Malaysia	
<i>Conidiobolus coronatus</i>	520
Philippines	
<i>Entomophaga</i> sp.	1126
PR China	
<i>Beauveria bassiana</i>	708
<i>Beauveria brongniartii</i>	656 678
<i>Trichothecium</i> sp.	653
<i>Nephrotettix cincticeps</i>	
Japan	
<i>Beauveria bassiana</i>	1098
Philippines	
<i>Metarhizium anisopliae</i>	2043
<i>Pandora delphacis</i>	458 459 460 461
478	
<i>Nephrotettix virescens</i>	
Indonesia, Jawa Barat, Java	
<i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	2106
Indonesia, Sulawesi Selatan, Celebes	
<i>Metarhizium anisopliae</i>	2153
Philippines	
<i>Hirsutella strigosa</i>	2197
<i>Metarhizium album</i>	1840 1941 1942
1943 2176 2178	
<i>Metarhizium flavoviride</i> var. <i>minus</i>	1945
<i>Recilia dorsalis</i>	
Philippines	
<i>Metarhizium anisopliae</i>	543

Homoptera: Cicadidae

Homoptera: Delphacidae

Homoptera: Cicadidae

Homoptera: Delphacidae

Homoptera: Cicadidae

Homoptera: Delphacidae

Homoptera: Cicadidae

Homoptera: Delphacidae
Hymenoptera: ?Megachilidae

Metarhizium anisopliae 1724 1725
 1726 1727 1728 1729 1744 1745
 1823
Pandora delphacis 1730 1731
 Indonesia, Jawa Barat, Java
Beauveria bassiana 2427
Conidiobolus coronatus 1876
Conidiobolus nr. coronatus 598
Hirsutella citriformis 1917 1918
 1919 2099 2100 2101 2102 2103
 2420 2422 2423 2426
Metarhizium anisopliae 2421
Metarhizium anisopliae var. *anisopliae* 2080
Paecilomyces fumosoroseus 2429
Pandora delphacis 2091
Pandora nr. delphacis 2146
 Indonesia, Jawa Tengah, Java
Hirsutella citriformis 2346
 Indonesia, Lampung, Sumatra
Hirsutella citriformis 532
 Indonesia, Lombok Island
Pandora delphacis 575 579
 Indonesia, Sulawesi Selatan, Celebes
Conidiobolus coronatus 563 565
Conidiobolus sp. 564
Metarhizium anisopliae 576
 Indonesia, Sumatera Selatan, Sumatra
Hirsutella sp. 568
 Indonesia, Sumatera Utara, Sumatra
Entomophaga australiensis 581
Pandora delphacis 580
 Indonesia, Yogyakarta, Java
Conidiobolus nr. coronatus 599 600
Conidiobolus sp. 595 596
Hirsutella citriformis 591
 Japan
Conidiobolus coronatus 997
Pandora delphacis 134 1124 1132
 1133 1264 1268
Zoophthora radicans 1125 1136
 Korea
Fusarium semitectum 2053
Hirsutella repens 2348 2359 2394
Metarhizium anisopliae 2038 2039
Torrubiella homopterorum 2045
 Malaysia
Conidiobolus coronatus 512 514 523
 524
Conidiobolus sp. 517 522
 Philippines
Conidiobolus coronatus 405 406 418
 511
Hirsutella citriformis 490 684 1036
 1062 1063 1064 1243 1244 1245
 1246 1247 1248 1249 1250 1251
 1252 1253 1254 1255 1256 1257
 1258 1259 1436 1549 1550
Hirsutella sp. 1096
Hirsutella strigosa 2044
Metarhizium anisopliae 455 456 457
 485 486 487 488 489 1284 1285
 1286 1290 1300 1304
Metarhizium flavoviride var. *minus*
 1099 1271 1272 1273 1274 1275
 1276 1277 1279 1283 1287 1288

Fungus by Host and Location

1289 1291 1292 1293 1294 1295
 1296 1297 1301 1302 1303 1305
 2037
Paecilomyces fumosoroseus 2198
 PR China
Beauveria bassiana 654 679 709 714
 717 719
Conidiobolus coronatus 655
Conidiobolus lachnoides 700
Fusarium sp. 687
Pandora delphacis 657 665 666 667
 668 669 670 672 673 674 676 682
 686 698 713 716
Zoophthora radicans 685
 Solomon Islands
Calcarisporium ovalisporum 1907
Entomophaga sp. 1881
Hirsutella citriformis 1908 1913
Metarhizium flavoviride var. *minus*
 1763 1764 1765 1766 1767 1768
 1769 1770 1771 1772 1773
 Sri Lanka
Hirsutella citriformis 1837
 Thailand
Conidiobolus coronatus 525 528
Tilletiopsis sp. 527 572 573
Sogatella furcifera
 Indonesia, Jawa Barat, Java
Pandora delphacis 2092 2093 2095
 2096 2409
 Indonesia, Sulawesi Selatan, Celebes
Conidiobolus nr. coronatus 602
Conidiobolus sp. 604
Nomuraea rileyi 558
Pandora delphacis 593 603
Sogatodes pusanus
 Indonesia, Jawa Barat, Java
Pandora delphacis 2094
Homoptera: Diaspididae
Lepidosaphes sp.
 Indonesia, Jawa Barat, Java
Fusarium coccophilum 2098
Melanaspis glomerata
 India
Fusarium moniliforme 2074
Melanaspis obscura
 USA, District of Columbia
Fusarium coccophilum 821
Nuculaspis tsugae
 Japan
Hirsutella sp. 1668
Unaspis citri
 USA, Florida
Paecilomyces sp. nov. 3084
Homoptera: Lecaniidae
lecanium viridis
 Sri Lanka
Verticillium lecanii 555
Homoptera: Margarodidae
Icerya purchasi
 Sri Lanka
Verticillium lecanii 1033

Homoptera: Membracidae
 Unknown genus
 Brazil, Pará
Hirsutella versicolor 1034
 Brazil, Rondônia
Hirsutella versicolor 1037
 Mexico
Beauveria bassiana 3312
 Papua New Guinea
Beauveria sp. 2164
Spissistilus festinus
 USA, Alabama
Pandora delphacis 2028
 USA, Arkansas
Pandora delphacis 3484
Umbonia sp.
 Ecuador
Sporodiniella umbellata 2895

Homoptera: Ortheziidae
Orthezia paelonga
 Brazil, Espírito Santo
Penicillium sp. 2643

Homoptera: Pseudococcidae
Phenacoccus solani
 USA, Florida
Paecilomyces fumosoroseus 2247
Rhizoecus sp.
 Unknown country
Beauveria bassiana 2236
Verticillium insectorum 2235
Verticillium psalliotiae 2234

Homoptera: Psyllidae
Heteropsylla cubana
 Papua New Guinea
Fusarium lateritium 2304
Fusarium sp. 2302 2303
 Philippines
Hirsutella citriformis 2347 2598
Heteropsylla incisa
 Papua New Guinea
Fusarium semitectum 2299 2300
Fusarium subglutinans 2301
 Philippines
Paecilomyces farinosus 2175
Psyllida etriozza
 Canada, Québec
Zoophthora radicans 126
Trioza urticae
 Switzerland
Zoophthora radicans 1719

Hymenoptera
 Unknown genus
 Brazil, Goiás
Conidiobolus sp. 2193
 Denmark
Ascospheara major 694
 Switzerland
Batkoia apiculata 395

Hymenoptera: ?Megachilidae
 Unknown genus
 Brazil, Goiás
Beauveria bassiana 957

Fungus by Host and Location

Hymenoptera: Apidae
Lepidoptera: Arctiidae

Hymenoptera: Apidae

- Apis mellifera*
USA, Oregon
Ascospshaera apis 691 692
- USA, Texas
Ascospshaera apis 2683

Hymenoptera: Apoidea

- Unknown genus
Brazil, Santa Catarina
Beauveria bassiana 1468

Hymenoptera: Diprionidae

- Neodiprion pini*
Unknown country
Beauveria bassiana 338
- Neodiprion tsugae*
USA, Alaska
Zoophthora radicans 13

Hymenoptera: Encyrtidae

- Anagyrus* sp.
Mexico
Metarhizium anisopliae var. *anisopliae* 3146

Hymenoptera: Eurytomidae

- Bephratelloides cubensis*
USA, Florida
Beauveria bassiana 2869

Hymenoptera: Formicidae

- Unknown genus
Mexico
Beauveria bassiana 2487
- Brazil, Bahia
Beauveria bassiana 1960

- Anoplolepis longipes*
Papua New Guinea
Aphanocladium album 2161
Aspergillus flavus 2157 2158 2159
Paecilomyces farinosus 2155
Paecilomyces viridis 2160
Verticillium indicum 2170

- Atta* sp.
Mexico
Beauveria bassiana 3285
- Brazil
Beauveria bassiana 1831

- Atta mexicana*
Mexico
Beauveria bassiana 2484 2485 2486

- Atta sexdens rubropilosa*
Brazil, São Paulo
Metarhizium anisopliae 2560

- Formica atta*
Brazil, Goiás
Metarhizium anisopliae 2510

- Paltothyreus tarsatus*
Ghana
Akanthomyces gracilis 2910 2919
Sporothrix insectorum 2909 2918

- Solenopsis* sp.
Brazil
Beauveria bassiana 2722 2723
- Brazil, São Paulo
Beauveria amorphia 2641
Metarhizium anisopliae 2561

Hymenoptera: Formicidae: Myrmicinae

- Unknown genus
Brazil, Mato Grosso
Beauveria bassiana 2402 2403 2404
Beauveria brongniartii 2401
Unidentified 2640
- USA, Texas
Conidiobolus sp. 2819

Hymenoptera: Ichneumonidae

- Unknown genus
France
Beauveria bassiana 1976 1977 1978
1979
- Poland
Beauveria bassiana 156
Fusarium lateritium 1331 1416
Verticillium lecanii 1330
- Cratichneumon lanius*
Poland
Unidentified 1421

Hymenoptera: Megachilidae

- Megachile centuncularis*
Denmark
Ascospshaera proliperda 695
- Megachile rotundata*
Lab. manipulation
Ascospshaera proliperda 696
- USA, Nevada
Ascospshaera aggregata 689
- USA, Oregon
Ascospshaera aggregata 690
- Ascospshaera atra* 693

Hymenoptera: Pamphiliidae

- Unknown genus
USA, Maine
Hirsutella gigantea 30
- Pamphilius betulae*
Commonwealth of Independent States
Beauveria bassiana 154 152

Hymenoptera: Sphecidae

- Unknown genus
Mexico
Beauveria bassiana 2545

Hymenoptera: Tenthredinidae

- Monophadnus elongatus*
Italy
Paecilomyces fumosoroseus 1576
- Pristiphora erichsonii*
Canada, British Columbia
Paecilomyces farinosus 1851

Hymenoptera: Vespidae

- Unknown genus
Brazil, Alagoas
Beauveria bassiana 1953
- Brazil, Amazonas
Beauveria bassiana 730
- Brazil, Goiás
Beauveria bassiana 2943 2944

Lepidoptera: Arctiidae

- Vespa vulgaris*
Canada, Alberta
Beauveria sp. 2997
- Isoptera*
Unknown genus
Brazil, Goiás
Metarhizium anisopliae 2951 2949

Lepidoptera: Oniscoidea

- Porcellio* sp.
USA, California
Conidiobolus sp. 1672
Myriodontium keratinophilum 368
386

Lepidoptera: Rhinotermitidae

- Coptotermes formosanus*
USA, Hawaii
Metarhizium anisopliae 3045
- Reticulitermes flavipes*
Canada, Ontario
Beauveria bassiana 3041

Lepidoptera

- Unknown genus
Brazil, Ceará
Beauveria bassiana 2637
- Brazil, Goiás
Erynia sp. 1241
Nomuraea rileyi 936
- Brazil, São Paulo
Beauveria bassiana 2633
- Canada
Furia crustosa 2906
Hirsutella sp. 2581
- Ecuador
Beauveria velata 2998
- Indonesia, Jawa Barat, Java
Metarhizium anisopliae var. *anisopliae* 2424
- Japan
Entomophaga auliceae 1140 1656
Furia neopyralidarum 1145
- Lab. manipulation
Metarhizium anisopliae 1094
- Mexico
Beauveria bassiana 2857
Verticillium sp. 2822
- Solomon Islands
Nomuraea rileyi 1879 1893
- Switzerland
Furia virescens 427
Zoophthora radicans 404
- USA, New York
Paecilomyces farinosus 3152
- Galactica* sp.
Brazil, Federal District
Metarhizium anisopliae 552

Lepidoptera: Arctiidae

- Hyphantria cunea*
Italy
Beauveria bassiana 1564 1565
Paecilomyces fumosoroseus 1568
1569 1577 1578 1579

Lepidoptera: Arctiidae
Lepidoptera: Lymantriidae

Fungus by Host and Location

<i>Pyrrharctia isabella</i> USA, New York <i>Paecilomyces farinosus</i> 3017	<i>Hibernia defoliaria</i> Poland Unidentified 1415 1417	Rumania <i>Beauveria bassiana</i> 299
<i>Spilosoma niveum</i> Japan <i>Entomophaga aulicae</i> 2372 2373 2374	<i>Lambdina athasaria</i> USA, Vermont <i>Paecilomyces farinosus</i> 3537 3538 Unidentified 3567 3568 3569	USA, Connecticut <i>Entomophaga maimaiga</i> 2775
Lepidoptera: Bombycidae	<i>Lambdina fiscellaria fiscellaria</i> Canada, Newfoundland <i>Entomophaga aulicae</i> 1991 2900	USA, Delaware <i>Beauveria bassiana</i> 2570 2571 2572 2573
<i>Bombyx mori</i> Japan <i>Aspergillus flavus</i> 1003 1010 <i>Beauveria bassiana</i> 302 303 304 305 1007 <i>Beauveria</i> sp. 1040 <i>Metarhizium anisopliae</i> var. <i>majus</i> 988 1015 <i>Paecilomyces fumosoroseus</i> 989 1005 <i>Paecilomyces lilacinus</i> 986 <i>Verticillium lecanii</i> 991	<i>Zoophthora radicans</i> 72 <i>Lambdina fiscellaria lugubrosa</i> Canada, British Columbia <i>Entomophaga aulicae</i> 1990	USA, Maryland <i>Aspergillus flavus</i> 2833 <i>Beauveria bassiana</i> 2831 3404 3529 3530 <i>Fusarium polypähladicum</i> 3696 <i>Fusarium</i> sp. 3532 <i>Paecilomyces farinosus</i> 2131 2835 3492 3498 3507 3524 3526 3666 <i>Penicillium</i> sp. 2834 2836
Philippines <i>Beauveria bassiana</i> 2737	<i>Rheumaptera hastata</i> Canada, Ontario <i>Entomophaga aulicae</i> 2899	USA, Massachusetts <i>Entomophaga maimaiga</i> 2779 <i>Fusarium polypähladicum</i> 3694
PR China <i>Beauveria bassiana</i> 718 <i>Metarhizium anisopliae</i> 703 <i>Nomuraea rileyi</i> 711 <i>Paecilomyces javanicus</i> 720	Lepidoptera: Hepialidae <i>Oryctanus</i> sp. New Zealand <i>Metarhizium anisopliae</i> 1187	USA, New Hampshire <i>Entomophaga maimaiga</i> 2780
Lepidoptera: Brassolidae	Lepidoptera: Hyblaeidae <i>Hyblaea puer</i> India <i>Beauveria bassiana</i> 2597 <i>Fusarium</i> sp. 2595	USA, New York <i>Entomophaga maimaiga</i> 3052 3053 <i>Fusarium polypähladicum</i> 3692 3693 <i>Paecilomyces farinosus</i> 648 697 2564 3595 3596 3597 3598 3599 <i>Verticillium lecanii</i> 3600 3601
<i>Brassolis</i> sp. Colombia <i>Beauveria bassiana</i> 2297	Lepidoptera: Lasiocampidae <i>Dendrolimus spectabilis</i> Japan <i>Basidiobolus ranarum</i> 1139 <i>Beauveria bassiana</i> 1677 <i>Entomophaga aulicae</i> 1655	USA, Oregon <i>Acremonium berkeleyanum</i> 2067 <i>Acrodontium crateriforme</i> 2070 <i>Beauveria bassiana</i> 2054 <i>Filibasidiella arachnophila</i> 2058 <i>Fusarium avenaceum</i> 2060 <i>Fusarium merismoides</i> 2059 <i>Humicola</i> sp. 2069 <i>Mortierella clausenii</i> 2062 <i>Mortierella hyalina</i> 2061 <i>Mortierella</i> sp. 2063 <i>Paecilomyces farinosus</i> 2057 <i>Penicillium thomii</i> 2056 <i>Phialophora malorum</i> 2072 <i>Phoma cava</i> 2071 Sterile mycelium 2073
<i>Brassolis saphorae</i> Brazil, Pará <i>Beauveria bassiana</i> 2619 <i>Paecilomyces</i> sp. 2613	<i>Gastropacha orientalis</i> Japan <i>Paecilomyces canadensis</i> 990	<i>Trichothecium roseum</i> 2055 <i>Verticillium coccosporum</i> 2064 <i>Verticillium fungicola</i> 2065 <i>Verticillium lecanii</i> 2066
Brazil, Sergipe <i>Paecilomyces</i> sp. 2620	Lepidoptera: Limacodidae <i>Natada miconta</i> Brazil, Pará <i>Paecilomyces</i> sp. 2616 2617 2618	USA, Pennsylvania <i>Beauveria bassiana</i> 3528 <i>Paecilomyces farinosus</i> 20 3221 3491 3499 3500 3506 3523
Lepidoptera: Castniidae <i>Castnia licus</i> Brazil, Pernambuco <i>Beauveria brongniartii</i> 1829	Lepidoptera: Lymantriidae <i>Leucoma salicis</i> Unknown country <i>Paecilomyces farinosus</i> 38	USA, Virginia <i>Beauveria bassiana</i> 3405 3527 <i>Fusarium polypähladicum</i> 3695 <i>Fusarium sambucinum</i> 3483 <i>Paecilomyces farinosus</i> 3490 3493 3494 3496 3497 3501 3502 3503 3504 3505 3508 3664 3665
Lepidoptera: Cossidae <i>Cossula cossus</i> Italy <i>Beauveria bassiana</i> 1103 1104 1558	<i>Lymantria</i> sp. Philippines <i>Nomuraea rileyi</i> 481 482 483	USA, West Virginia <i>Paecilomyces farinosus</i> 3495 3517 3518 3519 3520 3521 3522 3525 3533 <i>Verticillium</i> sp. 3531
<i>Prionoxystus robiniae</i> USA, Kentucky <i>Paecilomyces farinosus</i> 2269	<i>Lymantria dispar</i> Canada, Ontario <i>Beauveria bassiana</i> 2267	
<i>Zeuzera pyrina</i> Italy <i>Beauveria bassiana</i> 1105	Commonwealth of Independent States <i>Beauveria bassiana</i> 155	
Lepidoptera: Crambidae Unknown genus New Zealand <i>Metarhizium anisopliae</i> 3064	France <i>Scopulariopsis</i> sp. 2255	
Lepidoptera: Geometridae Unknown genus Japan <i>Cordyceps militaris</i> 2416	Japan <i>Entomophaga maimaiga</i> 1390 1391 1392 1400 1658 2370 2371	
<i>Enypia griseata</i> Canada, British Columbia <i>Entomophaga aulicae</i> 2000		

Fungus by Host and Location

Lepidoptera: Lyonetiidae	Lepidoptera: Lyonetiidae
<i>Leucoptera scitella</i>	<i>Pandora delphacis</i> 1265
Italy	<i>Mocis</i> sp.
<i>Beauveria bassiana</i> 1115 1117	Colombia
<i>Metarhizium anisopliae</i> 1116	<i>Beauveria</i> sp. 590
Lepidoptera: Microlepidoptera	<i>Metarhizium anisopliae</i> 587
Unknown genus	<i>Mocis frugalis</i>
Poland	Philippines
<i>Hirsutella subulata</i> 2227	<i>Nomuraea rileyi</i> 1762
Lepidoptera: Noctuidae	<i>Mocis latipes</i>
Unknown genus	Brazil, Goiás
Canada	<i>Conidiobolus</i> nr. <i>coronatus</i> 1884
<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2140	<i>Naranga</i> sp.
Denmark	Indonesia, Jawa Tengah, Java
<i>Tolypocladium cylindrosporum</i> 2777 2778	<i>Nomuraea rileyi</i> 2345
Hungary	<i>Plathypena scabra</i>
<i>Beauveria bassiana</i> 1627 1628 1629	USA, Missouri
Switzerland	<i>Nomuraea rileyi</i> 762
<i>Furia virescens</i> 470 1129	<i>Plusia</i> sp.
USA, Mississippi	Japan
<i>Nomuraea rileyi</i> 135	<i>Nomuraea rileyi</i> 1047
USA, New York	<i>Prodenia litura</i>
<i>Entomophaga aulicae</i> 3016	Japan
? <i>Heliothis</i> sp.	<i>Nomuraea rileyi</i> 1014
USA, Georgia	<i>Pseudaletia</i> sp.
<i>Entomophaga aulicae</i> 251	Canada, Ontario
<i>Aedia leucomelas</i>	<i>Entomophaga aulicae</i> 1999
Japan	<i>Pseudoplusia includens</i>
<i>Entomophaga aulicae</i> 998 198	USA, Alabama
<i>Anticarsia gemmatalis</i>	<i>Erynia</i> sp. 2027
Argentina	<i>Pseudoplusia ni</i>
<i>Nomuraea rileyi</i> 2013 2465 2466	Brazil
Brazil, Pará	<i>Acremonium roseum</i> 1964
<i>Nomuraea rileyi</i> 1950	<i>Rachiplusia ou</i>
Brazil, Rio Grande do Sul	Brazil, Rio Grande do Sul
<i>Nomuraea rileyi</i> 2201 2202 2203	<i>Nomuraea rileyi</i> 2206
2204 2205 2207	<i>Raghuva albipunctella</i>
Mexico	Senegal
<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3295	<i>Fusarium nygamai</i> 2316
<i>Nomuraea rileyi</i> 2492	<i>Rivula atimeta</i>
<i>Autographa gamma</i>	Philippines
France	<i>Nomuraea rileyi</i> 1756 1757 1758
<i>Beauveria bassiana</i> 2253 2254	1759 1760 2395
Japan	<i>Paecilomyces farinosus</i> 2344
<i>Entomophaga aulicae</i> 2363 2365	<i>Sesamia cretica</i>
<i>Heliothis armigera</i>	Italy
India	<i>Beauveria bassiana</i> 1118
<i>Nomuraea</i> sp. 2413	<i>Sesamia inferens</i>
Spain	Indonesia, Jawa Barat, Java
<i>Beauveria bassiana</i> 1149 1166	<i>Zoophthora radicans</i> 2411
<i>Heliothis virescens</i>	<i>Japan</i>
France	<i>Paecilomyces</i> sp. 1008
<i>Beauveria bassiana</i> 1314 1315 1316	<i>Spodoptera</i> sp.
Spain	Unknown country
<i>Beauveria bassiana</i> 1788	<i>Paecilomyces</i> sp. 2546
<i>Heliothis zea</i>	<i>Australia</i>
USA, Florida	<i>Nomuraea rileyi</i> 323 358 380
<i>Metarhizium anisopliae</i> 1080	<i>Brazil, Goiás</i>
<i>Mamestra brassicae</i>	<i>Nomuraea rileyi</i> 935
Japan	<i>Philippines</i>
<i>Entomophaga aulicae</i> 1657 1751	<i>Fusarium</i> sp. 2736
2362 2367 2368 2369	<i>Metarhizium anisopliae</i> 2735
Spodoptera frugiperda	<i>Paecilomyces farinosus</i> 2734
Brazil, Bahia	<i>Spodoptera exigua</i>
<i>Nomuraea rileyi</i> 1972	Thailand
Brazil, Paraná	<i>Nomuraea rileyi</i> 539
<i>Beauveria bassiana</i> 959	
Mexico	
<i>Beauveria bassiana</i> 3288	
<i>Beauveria</i> sp. 3289 3300	
<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3294	
<i>Nomuraea rileyi</i> 3301	
<i>Paecilomyces tenuipes</i> 2488 2489	
2490 2491	
Spodoptera littoralis	
France	
<i>Beauveria bassiana</i> 1512 1513 3286	
Lepidoptera: Notodontidae	
<i>Ellida caniplaga</i>	
Canada, Ontario	
<i>Entomophaga aulicae</i> 2903	
<i>Heterocampa</i> sp.	
Canada, Ontario	
<i>Entomophaga aulicae</i> 2902	
<i>Heterocampa biundata</i>	
Canada, Ontario	
<i>Entomophaga aulicae</i> 2905	
<i>Heterocampa guttivitta</i>	
Canada, Ontario	
<i>Entomophaga aulicae</i> 2904	
USA, New York	
<i>Entomophaga aulicae</i> 3039 3212	
USA, Vermont	
<i>Entomophaga aulicae</i> 2843	
<i>Quadicalcarifera punctatella</i>	
Japan	
<i>Paecilomyces farinosus</i> 1042	
Lepidoptera: Nymphalidae	
Unknown genus	
England	
<i>Paecilomyces farinosus</i> 981	
<i>Chlosyne lacinia saundersii</i>	
Brazil, Paraná	
<i>Metarhizium anisopliae</i> 1057 1059	
<i>Paecilomyces farinosus</i> 1058 1065	
Lepidoptera: Oecophoridae	
<i>Anteotricha</i> sp.	
Brazil, Pará	
<i>Paecilomyces</i> sp. 2615 2614	
Lepidoptera: Olethreutidae	
<i>Carpocapsa pomonella</i>	
Austria	
<i>Metarhizium anisopliae</i> 1095	
Yugoslavia, Serbia	
<i>Beauveria bassiana</i> 503	
Lepidoptera: Phycitinae	
<i>Emmalocera depressella</i>	
India	
<i>Fusarium</i> sp. 2418	
<i>Beauveria bassiana</i> 2417	

Lepidoptera: Pieridae

- Colias erate poliographus*
Japan
Entomophaga aulicae 2366
- Pieris brassicae*
Poland
Zoophthora radicans 1341 1342
1343 1344 1345 1346
- Pieris rapae*
USA, New York
Furia pieris 781

Lepidoptera: Plutellidae

- Plutella* sp.
Australia
Pandora blunckii 3075
- Plutella xylostella*
Germany
Pandora blunckii 217
- Japan
Erynia sp. 983
Pandora blunckii 1000
Zoophthora radicans 1048
- Malaysia
Zoophthora radicans 1100
- Philippines
Aspergillus flavus 2818
Aspergillus sp. 2765 2817 2820
Beauveria bassiana 2727 2728 2729
Beniowskia sp. 2751
Conidiobolus coronatus 2730
Conidiobolus firmipilleus 2731
Conidiobolus sp. 2771 2772 2815
2816 3208 2776
Paecilomyces fumosoroseus 2749
Pandora blunckii 2824 3200 3201
3202
Scopulariopsis sp. 3203 2752 2821
Zoophthora radicans 2732 2893
3204 3205 3206

Lepidoptera: Pyralidae

- Chilo infuscatellus*
India
Beauveria bassiana 1886
- Chilo plejadellus*
Australia
Beauveria bassiana 326
- Chilo sacchariphagus indicus*
India
Fusarium subglutinans 2142
- Cnaphalocrocis medinalis*
Indonesia, Jawa Barat, Java
Zoophthora radicans 2410
- Philippines
Beauveria bassiana 2041
Nomuraea rileyi 1761 2174
Unidentified 1703
Zoophthora radicans 1699
- Corcyra cephalonica*
Philippines
Mixed culture 2738
- Diaphania hyalinata*
Mexico
Paecilomyces fumosoroseus 3302

Diatraea saccharalis

- Brazil
Beauveria bassiana 1832 1834
- Brazil, Pernambuco
Beauveria bassiana 1484 2629 3020
- Brazil, São Paulo
Beauveria brongniartii 1830
- Mexico
Metarhizium anisopliae var. *anisopliae* 3290 3291 3292
Unidentified 3298 3299

Dioryctria sylvestrella

- Japan
Beauveria bassiana 1001
Hirsutella satsumaensis 996
- Galleria mellonella*
Italy
Beauveria bassiana 1114 1113
- Ostrinia nubilalis*
France
Metarhizium anisopliae 1489
- Italy
Beauveria bassiana 1121
- PR China
Beauveria bassiana 501 502 533 652

USA, New York

- Beauveria bassiana* 1038
Verticillium lecanii 900

- USA, Pennsylvania
Beauveria bassiana 2976

Pyrausta machaeralis

- India
Metarhizium sp. 2596

Scirphophaga excerptalis

- India
Fusarium subglutinans 2141
- Terastia meticulosalis*
Brazil
Beauveria bassiana 1836

Lepidoptera: Riodinidae

- Euselasia* sp.
Brazil, Rio Grande do Sul
Unidentified 3467 3468

Lepidoptera: Saturniidae

- Unknown genus
Costa Rica
Beauveria bassiana 843
- Dryocampa rubicunda*
Canada, Ontario
Entomophaga aulicae 2897
- Schirius* sp.
Brazil, Paraná
Beauveria bassiana 2962

Lepidoptera: Sesiidae

- Conopia myopaeformis*
Italy
Paecilomyces farinosus 1108

Lepidoptera: Stenomatinae

- Stenoma decora*
Brazil, Bahia
Beauveria bassiana 1479

Lepidoptera: Tortricidae

- Adoxophyes orana*

- Japan
Verticillium lecanii 994

- Choristoneura* sp.
Canada, British Columbia
Beauveria bassiana 1850

- Choristoneura fumiferana*
Canada, New Brunswick
Topycocladium niveum 3321

- Canada, Newfoundland
Entomophaga aulicae 2896 2898

- Canada, Ontario
Entomophaga aulicae 1992 1993
1994 1995 1997 1998 2901

- Zoophthora radicans* 407

- USA, Maine
Conidiobolus sp. 92 93 94 147 148

- Entomophaga aulicae* 51 164 165
166 167 168 172

- Hirsutella gigantea* 177 178

- Zoophthora radicans* 21 44 45 50 52
88 141 142 143 144 145 146 163

- 221 222 223 224 225 226 227 228

- 229 230 231 232 233 234 235

- Cydia pomonella*

- Australia
Verticillium lecanii 1032

- England
Paecilomyces farinosus 975

- France
Beauveria bassiana 151

- Italy
Beauveria bassiana 1122

- Verticillium lecanii* 1109

- Portugal
Beauveria bassiana 3220

- Eana argentana*

- Japan
Erynia sp. 1143

- Epiphyas postvittana*

- New Zealand
Paecilomyces sp. 309

- Laspeyresia medicaginis*

- France
Paecilomyces farinosus 1225

- Lobesia botrana*

- Italy
Beauveria bassiana 1107 1110

- Metarhizium anisopliae* 1112

- Paecilomyces farinosus* 1111

- Merophysa divulsana*

- Australia
Zoophthora radicans 1082

- Ptycholoma aeriferana*

- Japan
Zoophthora radicans 1674 1675

- Tortrix viridiana*

- France
Zoophthora radicans 68

Neuroptera: Chrysopidae

- Chrysopa* sp.

- Commonwealth of Independent States

- Beauveria bassiana* 153

Fungus by Host and Location

Orthoptera
Trichoptera

Orthoptera	<i>Melanoplus flavidus</i> USA, Wyoming <i>Entomophaga calopteni</i> 383	Orthoptera: Tettigoniidae
Unknown genus		Unknown genus
Brazil, Goiás		Brazil, Goiás
<i>Metarhizium anisopliae</i> 728		<i>Conidiobolus</i> sp. 1477
Mali		<i>Metarhizium anisopliae</i> 727
<i>Aspergillus niger</i> 3143		Indonesia, Sumatera Utara
USA		<i>Paecilomyces reniformis</i> 577
<i>Beauveria bassiana</i> 3622		Philippines
Orthoptera: Acrididae		<i>Paecilomyces reniformis</i> 429 484
Unknown genus		
Australia		
<i>Beauveria bassiana</i> 356 357		
Brazil, Bahia		Thysanoptera: Thripidae
<i>Beauveria bassiana</i> 1959		Unknown genus
Brazil, Paraná		France
<i>Beauveria bassiana</i> 1053		<i>Verticillium lecanii</i> 3701
Ecuador		Canada
<i>Metarhizium flavoviride</i> 2023		<i>Verticillium lecanii</i> 2923
France		<i>Frankliniella occidentalis</i>
<i>Beauveria bassiana</i> 1326		France
Japan		<i>Verticillium lecanii</i> 3683 3684 3685
<i>Entomophaga asiatica</i> 1393		3686 3687 3688 3689 3690 3691
Mali		USA, Florida
<i>Fusarium acuminatum</i> 3218		<i>Conidiobolus coronatus</i> 3222
USA, Montana		USA, Vermont
<i>Beauveria brongniartii</i> 32		Unidentified 3570
<i>Conidiobolus thromboides</i> 22		<i>Taeniothrips inconsequens</i>
? <i>Melanoplus</i> sp.		Unknown country
USA, Montana		Unidentified 3319
<i>Sorosporella</i> sp. 377		USA, Connecticut
<i>Austracris guttulosa</i>		<i>Verticillium lecanii</i> 3264 3265 3266
Australia		3267 3268 3269 3270
<i>Metarhizium anisopliae</i> 324		USA, Massachusetts
<i>Cannula pellucida</i>		<i>Verticillium lecanii</i> 3259 3260 3261
USA, Arizona		3262 3263
<i>Entomophaga macleodii</i> 496 618		USA, New Hampshire
619 620 621 624 628 629 765 767		<i>Verticillium lecanii</i> 3258
768 769 773 774 777 778 779		USA, New York
USA, North Dakota		<i>Verticillium lecanii</i> 3257
<i>Entomophaga macleodii</i> 3025		USA, Pennsylvania
<i>Dissosteira carolina</i>		<i>Verticillium lecanii</i> 3252 3253 3254
Canada, Ontario		3255
<i>Entomophaga macleodii</i> 375 376		USA, Vermont
USA, New York		<i>Hirsutella</i> sp. 1 2939 2940
<i>Entomophaga macleodii</i> 382 499		<i>Hirsutella</i> sp. 3546 3548 3553
<i>Melanoplus</i> sp.		<i>Paecilomyces farinosus</i> 3564
USA		Unidentified 3560
<i>Beauveria bassiana</i> 3620		<i>Verticillium lecanii</i> 3315 3316
Spain		3317
<i>Aspergillus</i> sp. 1152		<i>Verticillium lecanii</i> 2930 3318 3554
<i>Melanoplus bivittatus</i>		3555 3557 3558 3559 3562 3563
USA, Arizona		<i>Verticillium</i> sp. 3547 3549 3550
<i>Entomophaga calopteni</i> 497 766		3551 3552 3556 3561
USA, Montana		<i>Thrips calcaratus</i>
<i>Entomophaga calopteni</i> 408		USA, Wisconsin
USA, South Dakota		<i>Beauveria bassiana</i> 3216
<i>Entomophaga calopteni</i> 498		<i>Thrips palmi</i>
USA, Wyoming		USA, Puerto Rico
<i>Entomophaga calopteni</i> 390		<i>Cladosporium cladosporioides</i> 3375
<i>Melanoplus cuneatus</i>		<i>Thrips tabaci</i>
USA, Arizona		Denmark
<i>Entomophaga calopteni</i> 623 626		<i>Sporothrix</i> sp. 3142
646		
<i>Melanoplus differentialis</i>		Trichoptera
USA, Kansas		Unknown genus
<i>Entomophaga calopteni</i> 2522		Canada, Québec
		Unidentified 3242 3243 3244
		England
		<i>Erynia rhizospora</i> 1440 1441 1443

Pandora dipterigena 2406
USA, Maine
Erynia rhizospora 219
USA, New York
Erynia rhizospora 801 2276
Wales
Erynia rhizospora 1442

Trichoptera: Hydropsychidae
Unknown genus
England
Erynia rhizospora 2407

Nemata • Secernemtia

Aphelenchida: Aphelenchoididae
Aphelenchoides sp.
USA, New York
Verticillium balanoides 3173
Unidentified 3735

Dorylaimida: Longidoridae
Xiphinema sp.
USA, Pennsylvania
Leptolegnia sp. 2004
Catenaria anguillulae 2015
Xiphinema americanum
USA, Pennsylvania
Aphanomyces sp. 2005
Xiphinema rivesi
USA, Pennsylvania
Lagenidium caudatum 2003

Rhabditida: Rhabditidae
Cruznema lambdicense
USA, Tennessee
Macrobiotophthora vermicola 650

Tylenchida: Criconematidae
Criconemella curvata
USA, Pennsylvania
Hirsutella rhossiliensis 2007
Criconemella xenoplax
USA, Pennsylvania
Hirsutella rhossiliensis 2006 2008

Tylenchida: Heteroderidae
Heterodera humuli
Germany
Hirsutella rhossiliensis 2894
Heterodera schachtii
USA, California
Arthrobotrys dactyloides 2934
Hirsutella rhossiliensis 2788 2789
2790 2791 2792 2794 2931 2932
2933
Meloidogyne sp.
India
Paecilomyces marquandii 2233
Peru
Paecilomyces lilacinus 2183
Philippines
Paecilomyces lilacinus 2181 2182
2184 2185 2186

Vertebrata • Reptilia

Crocodylia: Alligatoridae
Alligator mississippiensis
USA, Oklahoma
Beauveria bassiana 2455

Squamata: Colubridae
Elaphe sp.
Germany
Schizangiella sp. 2239 2237

Squamata: Viperidae
Crotalus horridus
USA, Maryland
Schizangiella serpentis 203

Fungi

Basidiomycotina • Hymenomycetes

Agaricales
Volvariella volvacea
USA, Puerto Rico
Conidiobolus coronatus 1147

Unknown genus
USA, New York
Conidiobolus coronatus 3087

Geographical Origin

?Indonesia
Brazil

?Indonesia	<i>Zoophthora radicans</i> 1082	Espírito Santo
Unknown state	<i>South Australia</i>	<i>Beauveria bassiana</i> 1483
<i>Basidiobolus haptospora</i> 272	<i>Metarhizium anisopliae</i> 346	<i>Metarhizium anisopliae</i> 1044
<i>Basidiobolus</i> sp. 271	<i>Culicinomyces clavisporus</i> 2479	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 925
Antarctica	<i>Metarhizium anisopliae</i> 435 436 439	<i>Penicillium</i> sp. 2643
Unknown state	440 441 442 443 444 445 446	Federal District
<i>Paecilomyces farinosus</i> 2975	<i>Pandora neoaphidis</i> 830	<i>Beauveria bassiana</i> 3018 3019
Argentina	Austria	<i>Metarhizium anisopliae</i> 552
Buenos Aires	Unknown state	<i>Metarhizium anisopliae</i> 3479
<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2974	<i>Metarhizium anisopliae</i> 1095	<i>Paecilomyces fumosoroseus</i> 3480
<i>Paecilomyces farinosus</i> 2971 2973	<i>Burgenland</i>	<i>Paecilomyces lilacinus</i> 3481
Santiago del Estero	<i>Beauveria bassiana</i> 1533 1534 1535	Unidentified 3475 3476
<i>Nomuraea rileyi</i> 2465	1536 1537 1538 1539 1540 1635 1636	Goiás
Tucumán	1637 1638 1640 1643 1973 1974 1988	<i>Beauveria bassiana</i> 733 734 735 736
<i>Beauveria bassiana</i> 2010 2011 2457	<i>Fusarium</i> sp. 1641	737 738 739 752 754 758 806 809 928
2509 2515 2516	<i>Trichothecium roseum</i> 1639 1642	930 931 933 934 956 957 1476 1478
<i>Hirsutella thompsonii</i> 2012 2464	<i>Tirol</i>	1971 2079 2191 2625 2626 2636 2938
<i>Nomuraea rileyi</i> 2013 2466	<i>Tolyphocladium niveum</i> 3277	2942 2943 2944 2961
<i>Verticillium lecanii</i> 2009 2460	Belgium	<i>Conidiobolus</i> nr. <i>coronatus</i> 1884
Australia	Unknown state	<i>Conidiobolus</i> sp. 1477 2193
Unknown state	<i>Beauveria bassiana</i> 1848	<i>Entomophaga australiensis</i> 743 1888
<i>Conidiobolus</i> sp. 2924 2925 2926 2927	Benin	<i>Entomophaga</i> sp. 1230
<i>Culicinomyces clavisporus</i> 2622	Unknown state	<i>Erynia</i> sp. 1241
<i>Metarhizium anisopliae</i> 437 438	<i>Metarhizium flavoviride</i> 3606	<i>Furia americana</i> 742 2192 2194
<i>Pandora neoaphidis</i> 381	<i>Metarhizium</i> sp. 3612 3613 3614	<i>Hirsutella</i> sp. 1625
<i>Verticillium lecanii</i> 1032	Brazil	<i>Metarhizium anisopliae</i> 724 725 727
Aust. Capital Territory	Unknown state	728 729 759 760 782 808 929 932
<i>Metarhizium anisopliae</i> var. <i>majus</i>	<i>Acremonium roseum</i> 1964	939 955 2076 2077 2212 2213 2214
473	<i>Beauveria bassiana</i> 1831 1832 1833	2510 2513 2635 2941 2949 2951
<i>Pandora neoaphidis</i> 835	1834 1836 2722 2723 3219	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1448 1882 1883 1885 1952
New South Wales	<i>Beauveria</i> sp. 1835	1970 2514
<i>Beauveria bassiana</i> 300 356 357	<i>Metarhizium anisopliae</i> 549 550 551	Mixed culture 3472
<i>Conidiobolus coronatus</i> 471	1899 1902 1911 2517	<i>Nomuraea rileyi</i> 935 936
<i>Conidiobolus obscurus</i> 354 824 834	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3147	<i>Paecilomyces amoenoroseus</i> 2078
839	<i>Paecilomyces viridis</i> 807	2215 2958 2959 2960
<i>Culicinomyces clavisporus</i> 644 645	<i>Zoophthora radicans</i> 3026	<i>Paecilomyces fumosoroseus</i> 722 723
2471 2472 2473 2474 2475 2476 2477	Alagoas	744 2216 2217 2219 2220 2221 2952
2478	<i>Beauveria bassiana</i> 1953 1954 1955	<i>Paecilomyces</i> sp. 741
<i>Entomophaga praxibuli</i> 840	1956	<i>Pandora delphacis</i> 1238 1936
<i>Metarhizium anisopliae</i> 472	<i>Paecilomyces farinosus</i> 1957	<i>Penicillium</i> sp. 2950
<i>Nomuraea anemonoides</i> 2467	Amazonas	Unidentified 3626 3629 3633 3639
<i>Pandora kondoiensis</i> 828 837	<i>Beauveria bassiana</i> 730 731 732 756	3640 3641 3642 3643 3644 3645 3646
<i>Pandora neoaphidis</i> 827 829 831 836	2512 2957	3647 3648 3649 3650 3651 3652 3653
838	<i>Metarhizium anisopliae</i> 755	3654 3655 3656 3657
<i>Zoophthora radicans</i> 359 370 823	<i>Paecilomyces fumosoroseus</i> 2956	<i>Verticillium chlamydosporium</i> 2218
Queensland	Bahia	<i>Zoophthora radicans</i> 789 790 1492
<i>Beauveria bassiana</i> 325 326	<i>Beauveria bassiana</i> 1479 1959 1960	1493 1494 1495 1496 1497 1498 1499
<i>Conidiobolus coronatus</i> 349	1961 1962 2075	1500 1501 1502 1503 1504 1541 1542
<i>Cordyceps heteropoda</i> 1880	<i>Metarhizium anisopliae</i> 1045 1282	1543 1544 1581 1582 1583 1584 1585
<i>Crypticola clavulifera</i> 1940	1299 1379 1382 1896 1898 1900	1586 1587 1588 1589 1590 1591 1593
<i>Culicinomyces bisporalis</i> 1948 1949	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1894 1958	1594 1595 1928 1929 1930 1931 1932
<i>Culicinomyces clavisporus</i> 2480 2481	<i>Nomuraea rileyi</i> 1972	1933 1934 1935 1937 2196
<i>Entomophaga australiensis</i> 328 331	Unidentified 3474	Maranhão
365	Ceará	Unidentified 3630 3635
<i>Entomophthora chromaphidis</i> 1860	<i>Beauveria bassiana</i> 753 757 783 784	Mato Grosso
1862 1863	785 786 787 788 804 805 2637	<i>Beauveria bassiana</i> 477 937 938 941
<i>Lagenidium giganteum</i> 2529 2530	<i>Erynia</i> sp. 876 880 884	942 943 944 945 946 947 948 949
2531 2532 2533	<i>Hirsutella guyana</i> 2993	950 951 952 953 982 2402 2403 2404
<i>Metarhizium anisopliae</i> 324	<i>Hirsutella</i> sp. 2644 2645 2646 2647	<i>Beauveria brongniartii</i> 2401
<i>Nomuraea rileyi</i> 323 358 380	2648 2649 2650 2651 2652 2653 2654	<i>Conidiobolus</i> sp. 2147 2148
<i>Pandora blunckii</i> 3075	2655 2656 2657 2992	<i>Metarhizium anisopliae</i> 954
<i>Pandora kondoiensis</i> 369 825		<i>Paecilomyces lilacinus</i> 3469
<i>Pandora noutryi</i> 362		

Unidentified 2640 3470 3473 3627 3628 3631 3632 3636 3638	<i>Zoophthora radicans</i> 2994 2995 2996 3002 3003 3004 3005 3006 3007 3008 3009 3010 3011 3012 3013	<i>Pandora neoaphidis</i> 128 Unidentified 3227 3228 3229 3230 3231 3232 3233 3235 3236 3242 3243 3244 3245 3246 3247
Pará	<i>Sergipe</i> <i>Paecilomyces</i> sp. 2620	<i>Zoophthora radicans</i> 126
<i>Beauveria amorphula</i> 2251 <i>Beauveria bassiana</i> 2619 <i>Hirsutella versicolor</i> 1034 <i>Metarhizium anisopliae</i> 1890 1891 1895 1901 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1449 <i>Nomuraea rileyi</i> 1950 <i>Paecilomyces</i> sp. 2613 2614 2615 2616 2617 2618	<i>Canada</i> Unknown state <i>Furia crustosa</i> 2906 <i>Hirsutella</i> sp. 2581 <i>Metarhizium anisopliae</i> 1278 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2134 2135 2136 2137 2138 2139 2140 <i>Verticillium lecanii</i> 2923	<i>Chile</i> Unknown state <i>Beauveria vermicornia</i> 2922 Easter Island <i>Pandora neoaphidis</i> 833
Paraná	<i>Alberta</i> <i>Aspergillus flavus</i> 3144 <i>Beauveria bassiana</i> 3462 <i>Beauveria</i> sp. 2997 <i>Conidiobolus</i> sp. 3402 <i>Conidiobolus thrombooides</i> 2955 <i>Culicinomyces clavisorporus</i> 964 <i>Tolypocladium nubicola</i> 3434 3435 <i>Tolypocladium cylindrosporum</i> 962 963 <i>Tolypocladium geodes</i> 3271 3272 3273 <i>Tolypocladium niveum</i> 3279 3280 3432 <i>Verticillium lecanii</i> 3000	<i>Colombia</i> Unknown state <i>Aschersonia turbinata</i> 1030 <i>Beauveria bassiana</i> 842 3514 <i>Beauveria</i> sp. 590 <i>Metarhizium anisopliae</i> 587
<i>Furia americana</i> 1240 1242 <i>Metarhizium anisopliae</i> 1055 1056 1057 1059 2521 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 1989 <i>Paecilomyces farinosus</i> 1058 1065 <i>Zoophthora radicans</i> 1239	<i>British Columbia</i> <i>Beauveria bassiana</i> 1017 1849 1850 1852 1853 1854 1855 <i>Entomophaga aulicae</i> 1990 2000 <i>Paecilomyces farinosus</i> 1851	<i>Antioquia</i> <i>Lagenidium giganteum</i> 3326 Cauca <i>Metarhizium anisopliae</i> 589 Cundinamarca <i>Metarhizium anisopliae</i> 797
Pernambuco	<i>Manitoba</i> <i>Verticillium balanoides</i> 2483 New Brunswick <i>Tolypocladium niveum</i> 3281 3321	Meta <i>Beauveria bassiana</i> 796 2297 <i>Metarhizium anisopliae</i> 798
Piauí	Newfoundland <i>Entomophaga aulicae</i> 1991 2896 2898 2900 <i>Tolypocladium niveum</i> 3320 <i>Zoophthora radicans</i> 72	Nariño <i>Beauveria bassiana</i> 2248 2249 2250 <i>Paecilomyces farinosus</i> 799
Rio de Janeiro	Northwest Territories <i>Tolypocladium niveum</i> 3278 <i>Tolypocladium tundrense</i> 3399 3400	Tolima <i>Metarhizium anisopliae</i> 588 Valle de Cauca <i>Beauveria bassiana</i> 721
Rio Grande do Norte	Ontario <i>Beauveria bassiana</i> 2267 3041 <i>Entomophaga aulicae</i> 1992 1993 1994 1995 1997 1998 1999 2897 2899 2901 2902 2903 2904 2905	Commonwealth of Independent States Unknown state <i>Beauveria bassiana</i> 152 153 154 155 220 283 284 285 286 287 288 289 290 291 292 681 2695 <i>Conidiobolus thrombooides</i> 58 59 63 64 100 248 249 250
Rio Grande do Sul	<i>Entomophaga macleodii</i> 375 376 <i>Metarhizium anisopliae</i> 2042 <i>Tolypocladium microsporum</i> 3431 <i>Tolypocladium parasiticum</i> 3436 <i>Tolypocladium geodes</i> 3274 <i>Tolypocladium niveum</i> 3394 3395 <i>Zoophthora radicans</i> 407	Moldova <i>Metarhizium anisopliae</i> 2786 Russia <i>Conidiobolus thrombooides</i> 99
Rondônia	Québec <i>Beauveria bassiana</i> 1151 2983 2984 2985 2986 2987 2988 2989 2990 2991	Costa Rica Unknown state <i>Aspergillus flavus</i> 3430 <i>Beauveria bassiana</i> 843 <i>Conidiobolus coronatus</i> 274 <i>Fusarium</i> sp. 3345 <i>Paecilomyces fumosoroseus</i> 3429 Unidentified 3123 3426 3427 3428 3535 3536
Santa Catarina	<i>Conidiobolus obscurus</i> 121 122 124 125 <i>Conidiobolus thrombooides</i> 120 <i>Fusarium oxysporum</i> 1371 <i>Fusarium solani</i> 1148 <i>Metarhizium anisopliae</i> 2981 2982	Cartago <i>Beauveria bassiana</i> 3437 3438 3439 3441 3442 3444 3446 3447 3449 3450 3451 3452 3454 3455 3456 3457
São Paulo	Guanacaste <i>Conidiobolus coronatus</i> 3414 3415 Unidentified 3124 3413 3417 3419 3420 3421 3422 3423 3424 3425 <i>Verticillium lecanii</i> 3418 <i>Verticillium psalliotiae</i> 3416	128
<i>Beauveria amorphula</i> 2641 <i>Beauveria bassiana</i> 1480 1966 2559 2630 2631 2632 2633 2638 2639 2945 2946 <i>Beauveria brongniartii</i> 1830 <i>Metarhizium anisopliae</i> 2211 2560 2561 2634 <i>Metarhizium flavoviride</i> var. <i>minus</i> 2948 <i>Paecilomyces</i> sp. 3101 Unidentified 3637		

Geographical Origin

Puntarenas	England	Charente
<i>Hirsutella thompsonii</i> 3323	Unknown state	<i>Beauveria bassiana</i> 1648
Crete	<i>Beauveria bassiana</i> 2972	<i>Scopulariopsis</i> sp. 2327
Unknown state	<i>Hirsutella</i> sp. 970	<i>Zoophthora radicans</i> 2262
<i>Beauveria bassiana</i> 3607	<i>Paecilomyces farinosus</i> 975 981	Corsica
Czechoslovakia	<i>Tolypocladium cylindrosporum</i> 2920	<i>Scopulariopsis</i> sp. 2255
Unknown state	<i>Tolypocladium geodes</i> 3275 3276	Drôme
<i>Beauveria bassiana</i> 159 160	<i>Tolypocladium niveum</i> 3396	<i>Beauveria bassiana</i> 1398 1399 1649
<i>Conidiobolus thromboides</i> 70	<i>Tolypocladium tundrense</i> 3401	1795 1984
<i>Metarhizium flavoviride</i> 2133	Avon	Essonne
<i>Neozygites tetranychi</i> 2677	<i>Erynia conica</i> 2405	<i>Beauveria bassiana</i> 2318 2319
<i>Tolypocladium cylindrosporum</i> 961	<i>Pandora dipterigena</i> 2406	<i>Zoophthora radicans</i> 68
<i>Tolypocladium niveum</i> 616	Bedfordshire	Eure
Denmark	<i>Conidiobolus thromboides</i> 42 1735	<i>Beauveria bassiana</i> 1073 1074 1075
Unknown state	Devon	1158 1193
<i>Ascospaera major</i> 694	<i>Erynia conica</i> 1439	Eure-et-Loir
<i>Ascospaera proliperda</i> 695	<i>Erynia rhizospora</i> 1440 1441 1443	<i>Beauveria bassiana</i> 1192
<i>Batkoia apiculata</i> 3224 3225 3226	2407	Gard
<i>Conidiobolus obscurus</i> 2504	Hertfordshire	<i>Verticillium lecanii</i> 3683 3684 3685
<i>Conidiobolus</i> sp. 2672	<i>Conidiobolus coronatus</i> 1738	3686 3687 3688 3689 3690 3691
<i>Entomophthora muscae</i> 2543 2665	<i>Conidiobolus thromboides</i> 101 102 363	3701
2670 2673 2674 2675 2678	1733 1734	Haute-Savoie
<i>Erynia</i> sp. 2525 2536 2537 2538 2539	<i>Entomophthora muscae</i> 707	<i>Acremonium furcatum</i> 1372
2553 2663	<i>Erynia</i> sp. 2507	<i>Beauveria bassiana</i> 1317 1318 1394
<i>Strongwellsea castrans</i> 3282	<i>Zoophthora anglica</i> 1739	1796 1797 1798 1799
<i>Tolypocladium cylindrosporum</i> 2777	Staffordshire	Hérault
2778	<i>Conidiobolus</i> sp. 1444 1445 1485 1486	<i>Beauveria bassiana</i> 816 1185 3286
<i>Zoophthora radicans</i> 2666 3489	1487 1488	<i>Metarhizium anisopliae</i> 819
Faarevejle	France	<i>Pandora neoaphidis</i> 3126 3174 3175
<i>Conidiobolus pseudapiculatus</i> 2493	Unknown state	Ille-et-Vilaine
2496 2497 2502	<i>Aphanocladium album</i> 1329	<i>Conidiobolus obscurus</i> 97
<i>Entomophthora muscae</i> 2540 2541	<i>Beauveria bassiana</i> 149 150 151 384	<i>Zoophthora phalloides</i> 352
<i>Entomophthora schizophorae</i> 2667	813 814 815 1150 1157 1159 1160	La Varenne
<i>Erynia</i> sp. 2495	1165 1167 1168 1169 1170 1182 1186	<i>Conidiobolus thromboides</i> 73
<i>Zoophthora anglica</i> 2505	1306 1314 1315 1316 1319 1320 1321	Loire
<i>Zoophthora radicans</i> 2499 2500 2501	1322 1323 1324 1325 1389 1396 1397	Unidentified 1634
2503 2506 2523 2554	1404 1405 1406 1407 1408 1409 1410	Loiret
Frederiksborg	1411 1412 1413 1414 1512 1513 1515	<i>Beauveria bassiana</i> 1191
<i>Strongwellsea castrans</i> 3485	1516 1517 1523 1524 1792 1793 1794	Maine-et-Loire
<i>Zoophthora</i> sp. 3486 3487 3488	1864 1865 1866 1975 1976 1977 1978	<i>Metarhizium anisopliae</i> 820
Hornsherred	1979 1980 1982	Manche
<i>Conidiobolus</i> sp. 2494	<i>Beauveria brongniartii</i> 617 979	<i>Zoophthora radicans</i> 822
<i>Entomophthora muscae</i> 2668	<i>Conidiobolus obscurus</i> 67 434	Morbihan
København	<i>Fusarium</i> sp. 1522	<i>Metarhizium flavoviride</i> 1184 2024
<i>Sporothrix</i> sp. 3142	<i>Gibellula</i> sp. 1669	<i>Paecilomyces fumosoroseus</i> 1867
Lammfjorden	<i>Metarhizium anisopliae</i> 817 818 977	1868
<i>Erynia</i> sp. 2664	1489	Moselle
Ribe	<i>Metarhizium anisopliae</i> var. <i>majus</i>	<i>Conidiobolus obscurus</i> 133 355
<i>Entomophthora muscae</i> 2542	978 3145	Pyrénées-Orientales
Roskilde	<i>Nomuraea rileyi</i> 1670 1671	<i>Beauveria bassiana</i> 1326 1520 1521
<i>Conidiobolus</i> sp. 2498	<i>Paecilomyces fumosoroseus</i> 887 1644	Réunion
<i>Entomophaga</i> sp. 2535 2671	1645	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3148
Ecuador	<i>Paecilomyces</i> sp. 971	Seine-Maritime
Unknown state	<i>Pandora neoaphidis</i> 1604 1605 1606	<i>Beauveria bassiana</i> 1514
<i>Beauveria bassiana</i> 2557	1607 1609 1610 1611 1612 1613 1615	<i>Paecilomyces fumosoroseus</i> 1626
<i>Beauveria velata</i> 2998	1616 1617 1981 1985 1986 1987	Seine-Saint-Denis
<i>Metarhizium</i> sp. 2556	<i>Sorosporella uvelia</i> 1714	<i>Beauveria bassiana</i> 1395 1650
<i>Sporodiniella umbellata</i> 2895	<i>Verticillium lecanii</i> 1328	Vaucluse
Galapagos Islands	<i>Verticillium</i> sp. 1401 1402 1403	<i>Beauveria bassiana</i> 812 1509 1510
<i>Metarhizium flavoviride</i> 2023	<i>Zoophthora lanceolata</i> 468	1511 1518 1519
<i>Verticillium lecanii</i> 2916	<i>Zoophthora radicans</i> 2256 2257 2258	<i>Paecilomyces farinosus</i> 1507 1508
	2259 2260 2261	<i>Paecilomyces fumosoroseus</i> 1506
	Ardennes	<i>Verticillium lecanii</i> 1505
	<i>Beauveria bassiana</i> 1647	Vienne
	Avignon	<i>Beauveria bassiana</i> 1491
	<i>Pandora neoaphidis</i> 1598	

France**Italy****Geographical Origin**

Paecilomyces farinosus 1225
Vosges
Beauveria bassiana 1789 1790 1791
Beauveria sp. 1327
Yvelines
Beauveria bassiana 1156 1161 1162
 1194 1630 1800 1801 2253 2254 2320
 2321 2322 2458 2461 2462 2463 3120
 3121
Entomophthora muscae 2087 2088
 2089 2263 2264 2265 2266 2317
Fusarium sp. 2252
Paecilomyces fumosoroseus 1646
Scopulariopsis sp. 2328
 Unidentified 3122 3125
Verticillium sp. 2323 2324 2325 2326
 2329

Germany
 Unknown state
Hirsutella rhossiliensis 2894
Metarhizium anisopliae 1910
Schizangiella sp. 2237 2239
Hesse
Beauveria bassiana 340
Pandora blunckii 217
Kiel-Kitzeberg
Metarhizium flavoviride 2025

Ghana
 Unknown state
Akanthomyces gracilis 2910 2919
Sporothrix insectorum 2909 2918
Eastern
Pseudogibellula formicarum 2913

Greece
 Unknown state
Beauveria bassiana 1802 1803 1812
 1822

Guatemala
Petén
Conidiobolus coronatus 3379
Fusarium sp. 3382
 Unidentified 3378

Guinea-Bissau
 Unknown state
Metarhizium sp. 3615

Hungary
 Unknown state
Beauveria bassiana 1627 1628 1629

India
 Unknown state
Aspergillus sp. 3698
Beauveria bassiana 2417 2597
Beauveria brongniartii 2660
Beauveria sp. 2412
Fusarium moniliforme var. *intermedium* 3223
Fusarium sp. 2232 2418 2595
Metarhizium anisopliae 3603
Metarhizium anisopliae var. *anisopliae* 2231 3210
Metarhizium sp. 2596
Nomuraea sp. 2413

Paecilomyces farinosus 55
Paecilomyces fumosoroseus 3699 3700
Paecilomyces marquandii 2233
 Sterile mycelium 3702
Verticillium lecanii 1026 2659
Verticillium sp. 2414
Andhra Pradesh
Conidiobolus nr. *coronatus* 1742 1743
Conidiobolus sp. 211
Pandora delphacis 1730 1731
Karnataka
Conidiobolus bangalorensis 449
Tamil Nadu
Beauveria bassiana 1886
Fusarium moniliforme 2074
Fusarium subglutinans 2141 2142 2143
 2144 2145
Metarhizium anisopliae 1724 1725
 1726 1727 1728 1729 1744 1745 1823

Indonesia
 Unknown state
Basidiobolus haptospora 261
Metarhizium sp. 2224
Verticillium cinnamomeum 2399
Bali
Gibellula sp. 570
Java
Verticillium lecanii 2149 2150
Jawa Barat, Java
Aschersonia aleurodis 2154
Beauveria bassiana 2427
Conidiobolus coronatus 1876
Conidiobolus nr. *coronatus* 598
Entomophaga sp. 2083
Erynia sp. 2097
Fusarium coccophilum 2098
Hirsutella citriformis 1917 1918 1919
 2099 2100 2101 2102 2103 2420 2422
 2423 2426 2428
Metarhizium anisopliae 2421
Metarhizium anisopliae var. *anisopliae* 2080 2105 2106 2424
Metarhizium anisopliae var. *majus* 2151
Paecilomyces fumosoroseus 2425 2429
Pandora delphacis 2091 2092 2093
 2094 2095 2096 2409
Pandora nr. *delphacis* 2132 2146
Zoophthora radicans 2410 2411
Jawa Tengah, Java
Hirsutella citriformis 2346
Nomuraea rileyi 2345
Lampung, Sumatra
Hirsutella citriformis 532
Lombok Island
Beauveria bassiana 560
Pandora delphacis 575 579
Sulawesi Selatan, Celebes
Aspergillus nr. *parasiticus* 2173
Conidiobolus coronatus 563 565 597
Conidiobolus nr. *coronatus* 602
Conidiobolus sp. 564 604 605 606
Metarhizium anisopliae 576 2153
Metarhizium sp. 2210 2225
Nomuraea rileyi 558

Paecilomyces guaensis 2152
Pandora delphacis 593 603
Sulawesi Utara, Celebes
Metarhizium album 2082
Sumatera Selatan, Sumatra
Hirsutella sp. 568
Sumatera Utara
Conidiobolus coronatus 567
Paecilomyces reniformis 577
Sumatera Utara, Sumatra
Entomophaga australiensis 581
Gibellula sp. 569
Pandora delphacis 580
Yogyakarta, Java
Aschersonia inasperata 2351 2397
 2398
Beauveria bassiana 566
Conidiobolus nr. *coronatus* 599 600
Conidiobolus sp. 595 596
Hirsutella citriformis 591
Paecilomyces sp. 2350 2378

Israel
 Unknown state
Conidiobolus osmodes 79
Conidiobolus thrombooides 83 194
Pandora neoaphidis 78
Verticillium lecanii 1029
Zoophthora phytonomi 113 191 192
Zoophthora radicans 80 81 103 104
 114 139 195
Brenner
Zoophthora radicans 3623
Central District
Conidiobolus obscurus 74
Zoophthora radicans 75
Harmerkaz
Pandora nr. *echinospora* 138
Zoophthora radicans 105 106 107 108
 109 110 111 112

Italy
 Unknown state
Beauveria bassiana 1105 1559 1560
 1561 1562 1563 1564 1565
Paecilomyces fumosoroseus 1568 1569
 1577 1578 1579
Verticillium lecanii 973 1102
Emilia-Romagna
Beauveria bassiana 1103 1104 1107
 1110 1113 1114 1115 1117 1118 1119
 1122 1558
Metarhizium anisopliae 1112 1116
 1120
Paecilomyces farinosus 1108 1111
Paecilomyces fumosoroseus 1576
Verticillium lecanii 1109
Lazio
Beauveria sp. 1195 1196 1197 1198
 1201 1202 1203 1204 1205 1206 1207
 1209 1210 1211 1213 1214 1215 1216
 1218 1219 1220 1221 1222 1224
Fusarium sp. 1307
Trichothecium roseum 1212 1226 1308
Trichothecium sp. 1217 1223
Sicily
Beauveria bassiana 1106

Geographical Origin

Italy
Mali

Toscana	Nagano Prefecture	Lab. manipulation
<i>Beauveria bassiana</i> 1525 1526 1527 1528	<i>Beauveria amorpha</i> 1682 <i>Beauveria bassiana</i> 1683 <i>Beauveria bronniartii</i> 1676	Unknown state
<i>Beauveria</i> sp. 1199 1200 1208	Nagasaki Prefecture	<i>Ascospaera proliperda</i> 696
Umbria	<i>Beauveria bassiana</i> 1678	<i>Beauveria bassiana</i> 275 276 277 278 279 280 281 282 2785 3113 3215
<i>Beauveria bassiana</i> 1529 1531	Nara Prefecture	<i>Conidiobolus coronatus</i> 1736 1737
<i>Paecilomyces fumosoroseus</i> 1530 1532	<i>Hirsutella</i> sp. 1668	<i>Conidiobolus obscurus</i> 832 1741
Venetia	Oita Prefecture	<i>Conidiobolus thromboides</i> 84 85
<i>Beauveria bassiana</i> 1121	<i>Paecilomyces andoi</i> 1684	<i>Culicinomyces clavisporus</i> 1260 2482
Ivory Coast	<i>Paecilomyces flavovirescens</i> 1686	<i>Entomophaga australiensis</i> 1920
Unknown state	Osaka Prefecture	<i>Entomophaga calopteni</i> 500
<i>Hirsutella thompsonii</i> 257	<i>Beauveria bassiana</i> 1553 1554 1555 1556	<i>Entomophaga macleodii</i> 770 771 772 775 776 3077 3078 3079
Jamaica	Saga Prefecture	<i>Entomophaga maimaiga</i> 1746 2661 3110
Unknown state	<i>Aschersonia aleyrodis</i> 992	<i>Entomophaga praxibuli</i> 2721 2963
<i>Hirsutella thompsonii</i> 256	Saitama Prefecture	2964 2965 2966 2967 2968 2969 2970 3058 3059 3060 3061 3067 3068 3069
Japan	<i>Basidiobolus ranarum</i> 1139	3356 3357 3358
Unknown state	<i>Paecilomyces fumosoroseus</i> 989	<i>Metarhizium anisopliae</i> 844 845 846 847 848 849 850 851 852 853 854 855
<i>Beauveria bassiana</i> 302 303 304 305 308	<i>Verticillium lecanii</i> 994	856 857 858 859 860 861 862 863 864
<i>Cordyceps militaris</i> 2416	Shizuoka Prefecture	865 866 867 868 869 870 871 872 873
<i>Metarrhizium anisopliae</i> var. <i>majus</i> 1092 1093	<i>Conidiobolus obscurus</i> 1146	874 875 889 890 891 892 893 894 895
Aichi Prefecture	Tokyo Prefecture	896 897 898 901 902 903 904 905 906
<i>Beauveria bassiana</i> 1041	<i>Aspergillus flavus</i> 1003 1010	907 908 909 910 911 912 913 921 922
Aomori Prefecture	<i>Beauveria bassiana</i> 1001 1007	960 965 966 967 968 1022 1023 1024
<i>Paecilomyces farinosus</i> 1043	<i>Beauveria bronniartii</i> 985 1680	1025 1083 1084 1085 1086 1087 1088
Chiba Prefecture	<i>Beauveria</i> sp. 1040 1681	1089 1090 1091 1094 1097 1281 1892
<i>Entomophaga aulicæ</i> 2373 2374	<i>Conidiobolus thromboides</i> 1006	2602 2603 2604 2605 2606 2607 2608
<i>Entomophaga maimaiga</i> 2370 2371	<i>Entomophaga aulicæ</i> 198 998	2609 2610 2611 2612
Fukui Prefecture	<i>Entomophthora</i> sp. 999	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3127
<i>Entomophaga asiatica</i> 1393 1659	<i>Erynia</i> sp. 983	<i>Pandora delphacis</i> 2046 2047
Fukuoka Prefecture	<i>Hirsutella satsumaensis</i> 996	<i>Verticillium lecanii</i> 310 311 312 313 314 811
<i>Conidiobolus coronatus</i> 997	<i>Metarrhizium anisopliae</i> 1009 1011 1046	<i>Zoophthora radicans</i> 161 162 183 184 185 186 187 188 491 899 1841 2697
<i>Conidiobolus obscurus</i> 1131	<i>Metarrhizium anisopliae</i> var. <i>majus</i> 988 1015	2698 2699 2704 2705 2707 2710 2711
<i>Erynia</i> sp. 1052 1266 1267	<i>Nomuraea rileyi</i> 1014 1047	2714 3117 3118 3151 3161 3163 3172
<i>Pandora blunckii</i> 1004	<i>Paecilomyces canadensis</i> 984 990	3217 3355
<i>Pandora delphacis</i> 134 1101 1124 1132 1133 1264 1268	<i>Paecilomyces fumosoroseus</i> 1005	Malaysia
<i>Pandora neoaphidis</i> 1134	<i>Paecilomyces lilacinus</i> 986	Unknown state
Unidentified 1013 1051	<i>Paecilomyces</i> sp. 1008	<i>Beauveria bassiana</i> 547
<i>Verticillium lecanii</i> 1002	<i>Pandora blunckii</i> 1000	<i>Conidiobolus coronatus</i> 512 514 524
<i>Zoophthora radicans</i> 1050 1125 1136 1263	<i>Pandora delphacis</i> 1265	<i>Conidiobolus</i> sp. 522
Hokkaido Prefecture	<i>Pandora neoaphidis</i> 993 1137	<i>Paecilomyces farinosus</i> 531
<i>Entomophaga aulicæ</i> 2362 2363 2365 2366 2367 2368 2369	<i>Tilachlidium</i> sp. 2415	<i>Paecilomyces lilacinus</i> 1552
<i>Erynia</i> sp. 1143	<i>Verticillium lecanii</i> 991	Pahang
<i>Zoophthora radicans</i> 1674 1675	<i>Zoophthora radicans</i> 1048	<i>Zoophthora radicans</i> 1100
Ibaraki Prefecture	Kenya	Wellesley Province
<i>Beauveria bassiana</i> 1098	Unknown state	<i>Conidiobolus coronatus</i> 520 523
<i>Beauveria</i> sp. 1685	<i>Beauveria bassiana</i> 2685 2686 2687	<i>Conidiobolus</i> sp. 517
<i>Entomophaga aulicæ</i> 1140 1655 1656 1657 1751 2372	Korea	<i>Paecilomyces farinosus</i> 763
<i>Furia neopyralidarum</i> 1145	Unknown state	Mali
Ishikawa Prefecture	<i>Beauveria bassiana</i> 2040	Unknown state
<i>Beauveria bassiana</i> 1677	<i>Fusarium semitecum</i> 2053	<i>Aspergillus niger</i> 3143
<i>Entomophaga maimaiga</i> 1390 1391 1392 1400 1658	<i>Hirsutella bogoriensis</i> 2187	<i>Aspergillus</i> sp. 3048
Iwate Prefecture	<i>Hirsutella repens</i> 2348 2359 2394	<i>Fusarium acuminatum</i> 3218
<i>Paecilomyces farinosus</i> 1042	<i>Metarrhizium</i> sp. 3618	<i>Fusarium</i> sp. 3051
Kumamoto Prefecture	<i>Metarrhizium anisopliae</i> 2038 2039	<i>Paecilomyces marquandii</i> 3047 3049
<i>Beauveria bassiana</i> 1679	<i>Torrubiella homopterorum</i> 2045	Koulikoro
		Unidentified 3380 3381

Mexico	Netherlands	Peru
Unknown state <i>Beauveria bassiana</i> 319 2693 3287 3288 3309 3311 <i>Beauveria</i> sp. 3289	Unknown state <i>Metarhizium flavoviride</i> 2026 Utrecht <i>Aschersonia aleyrodis</i> 2268	Unknown state <i>Paecilomyces lilacinus</i> 2183
<i>Fusarium</i> sp. 3296 3300 3676 3677 <i>Metarhizium anisopliae</i> 1912 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3146 3290 3291 3292 3293 3294 3297 3305 3306 3307 3308 <i>Nomuraea rileyi</i> 3301 Unidentified 3298 3299 <i>Zoophthora phalloides</i> 351 <i>Zoophthora radicans</i> 379	New Zealand Unknown state <i>Metarhizium anisopliae</i> 2518 <i>Paecilomyces</i> sp. 309 <i>Tolyphocladium extingens</i> 2921 <i>Tolyphocladium cylindrosporum</i> 2911 North Island <i>Metarhizium anisopliae</i> 1187 South Island <i>Beauveria bassiana</i> 3055 3063 3065 3066 3070 <i>Beauveria brongniartii</i> 3054 <i>Metarhizium anisopliae</i> 3056 3057 3064 <i>Tolyphocladium cylindrosporum</i> 841 976 1027 1028	Andes Mountains <i>Beauveria bassiana</i> 1969
Baja California <i>Basidiobolus haptospora</i> 263 <i>Fusarium</i> sp. 3672 3679 <i>Paecilomyces fumosoroseus</i> 3302	Nicaragua Unknown state <i>Beauveria bassiana</i> 3443 3445 3448 3453 Unidentified 3440	Philippines Unknown state <i>Hirsutella citriformis</i> 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 <i>Metarhizium flavoviride</i> var. <i>minus</i> 1546 1547
Colima <i>Beauveria bassiana</i> 3310 3312 <i>Metarhizium anisopliae</i> 2764 <i>Paecilomyces fumosoroseus</i> 3313 <i>Paecilomyces javanicus</i> 3303 Unidentified 3304	Niger Unknown state <i>Metarhizium flavoviride</i> var. <i>minus</i> 3341	Abra <i>Nomuraea rileyi</i> 1762
Durango <i>Beauveria bassiana</i> 2857 <i>Verticillium</i> sp. 2822 2832	Nigeria Unknown state <i>Conidiobolus coronatus</i> 206	Benguet <i>Aspergillus flavus</i> 2818 <i>Aspergillus</i> sp. 2765 2817 2820 <i>Beauveria bassiana</i> 2725 2727 2728 2729 2737 2739 2748 3197 3198 3199
Jalisco <i>Beauveria bassiana</i> 2330	Oman Unknown state <i>Metarhizium anisopliae</i> 3610 3611	Beniowskia sp. 2751 <i>Conidiobolus coronatus</i> 2730 <i>Conidiobolus firmipilleus</i> 2731 <i>Conidiobolus</i> sp. 2771 2772 2815 2816 3208 <i>Fusarium</i> sp. 2736 2743 2776
Mexico <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2469	Pakistan Unknown state <i>Fusarium</i> sp. 3704 3707 <i>Metarhizium anisopliae</i> 3605 3619 Sterile mycelium 3703 3705 3712	<i>Metarhizium anisopliae</i> 2735 2741 2805 2806 2809 <i>Mixed culture</i> 2738 2740 3178 <i>Paecilomyces farinosus</i> 2724 2726 2734 3191 <i>Paecilomyces fumosoroseus</i> 2733 2744 2745 2749 3179 3188 <i>Pandora blunckii</i> 2824 3200 3201 3202 <i>Scopulariopsis</i> sp. 3189 3203 Unidentified 2746 2747 2752 2821 <i>Verticillium</i> sp. 2810 <i>Zoophthora radicans</i> 2732 2893 3204 3205 3206
Nuevo Leon <i>Beauveria bassiana</i> 2487 2544 2545 3285	Papua New Guinea Unknown state <i>Aphanocladium album</i> 2161 <i>Aspergillus flavus</i> 2157 2158 2159 <i>Beauveria</i> sp. 2164 <i>Metarhizium anisopliae</i> 3604 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2156 2162 2163 2165 2166 2167 <i>Paecilomyces farinosus</i> 2155 <i>Paecilomyces viridis</i> 2160 <i>Scopulariopsis</i> sp. 2169 <i>Verticillium indicum</i> 2170	Cagayan <i>Metarhizium album</i> 2081
Sinaloa <i>Beauveria bassiana</i> 2484 2485 2486	East New Britain <i>Fusarium lateritium</i> 2304 <i>Fusarium semitectum</i> 2299 2300 <i>Fusarium solani</i> 2311 2312 2313 2314 <i>Fusarium</i> sp. 2302 2303 <i>Fusarium subglutinans</i> 2301	Laguna <i>Aspergillus</i> sp. 3176 <i>Conidiobolus coronatus</i> 405 406 418 419 421 422 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3180 <i>Metarhizium album</i> 1942 1943
Tamaulipas <i>Aschersonia</i> sp. 3014 3015 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3295 <i>Nomuraea rileyi</i> 2492 <i>Paecilomyces tenuipes</i> 2488 2489 2490 2491	New Britain <i>Hirsutella thompsonii</i> 258 414	Leyte <i>Hirsutella citriformis</i> 2347 2598 <i>Metarhizium album</i> 2176 2177 2178 2179 <i>Nomuraea rileyi</i> 2174 <i>Paecilomyces farinosus</i> 2175 <i>Paecilomyces lilacinus</i> 2181 2182 2185 2186
Morocco Unknown state <i>Beauveria bassiana</i> 1153 1154 1155 1163 1164 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1183 1188 1189 1190 1309 1311 1312 1313 1811 1815 1816 1817 1818 1819 1820 1821 <i>Fusarium</i> sp. 1310		Manila <i>Aschersonia insperata</i> 2356 2357 2358 <i>Beauveria bassiana</i> 2041 <i>Beauveria brongniartii</i> 1431 <i>Conidiobolus coronatus</i> 511 <i>Entomophaga</i> sp. 1126 <i>Hirsutella citriformis</i> 490 684 1036 1062 1063 1064 1436
Nepal Unknown state <i>Cladosporium</i> sp. 3706 Sterile mycelium 3711 <i>Tolyphocladium cylindrosporum</i> 3392 3393 <i>Tolyphocladium niveum</i> 3433		

Geographical Origin

Hirsutella guyana 2352 2387
Hirsutella inasperata 2396
Hirsutella sp. 1096
Hirsutella strigosa 2044 2197
Hirsutella verticilloides 2599
Metarhizium anisopliae 455 456 457
 485 486 487 488 489 543 1284 1285
 1286 1290 1300 1304 2043 2353
Metarhizium album 1840
Metarhizium flavoviride var. *minus*
 1099 1271 1272 1273 1274 1275 1276
 1277 1279 1283 1287 1288 1289 1291
 1292 1293 1294 1295 1296 1297 1301
 1302 1303 1305 1945 2037
Nomuraea rileyi 481 482 483 1761
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Paecilomyces farinosus 2344 2355
Paecilomyces fumosoroseus 2198 2376
Paecilomyces lilacinus 2184
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Hirsutella sp. 2208 2209
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 333 334 335 474 1359
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Hirsutella radiata 1369
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 1333 1334 1335 1351 1352 1357
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Gibellula clavulifera var. *alba* 1909
Hirsutella citriformis 1908 1913
Metarhizium flavoviride var. *minus*
 1763 1764 1765 1766 1767 1768 1769
 1770 1771 1772 1773
Nomuraea atypicola 1904
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Torrubiella raticaudata 1915 1916
Verticillium nr. *aranearum* 1905
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 2085 2086
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<i>Batkoia gigantea</i> 214 215 403	<i>Verticillium lecanii</i> 980	<i>Conidiobolus obscurus</i> 3080
<i>Beauveria bassiana</i> 2694	<i>Ankara</i>	<i>Pandora neoaphidis</i> 3081 3082
<i>Beauveria brongniartii</i> 1069	<i>Beauveria bassiana</i> 3153 3154 3155 3156 3157 3158 3166 3167 3168	Connecticut
<i>Conidiobolus coronatus</i> 1572 1573 1574 1575	USA	<i>Entomophaga maimaiga</i> 2775
<i>Conidiobolus</i> sp. 391	Unknown state	<i>Metarhizium anisopliae</i> 3713 3720 3721
<i>Entomophaga aulicae</i> 393	<i>Beauveria bassiana</i> 3620 3622	<i>Unidentified</i> 3722
<i>Entomophthora culicis</i> 387	<i>Conidiobolus coronatus</i> 205	<i>Verticillium lecanii</i> 3264 3265 3266 3267 3268 3269 3270
<i>Entomophthora muscae</i> 392	<i>Metarhizium anisopliae</i> 1903 3608	Delaware
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<i>Erynia conica</i> 1752 1753	<i>Verticillium lecanii</i> 17	<i>Zoophthora phytonomi</i> 2188
<i>Erynia curvispora</i> 1754	<i>Alabama</i>	District of Columbia
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<i>Metarhizium anisopliae</i> 1066 1373 1374 1375 1376 1377	<i>Alaska</i>	<i>Aphanocladium album</i> 3680
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<i>Zoophthora aphidis</i> 425	<i>Entomophaga calopteni</i> 497 623 625 626 646 766	<i>Beauveria bassiana</i> 320 412 413 416 2869 3086
<i>Zoophthora lanceolata</i> 426 469	<i>Entomophaga macleodii</i> 496 618 619 620 621 624 628 629 765 767 768 769 773 774 777 778 779	<i>Conidiobolus coronatus</i> 3222
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Schaffhausen	<i>Arkansas</i>	<i>Conidiobolus</i> sp. 3406 3407
<i>Beauveria bassiana</i> 1566 1567	<i>Pandora delphacis</i> 3484	<i>Conidiobolus thromboides</i> 39
<i>Pandora dipterigena</i> 1720	<i>Pandora neoaphidis</i> 3248 3249 3250 3251	<i>Hirsutella citriformis</i> 1035 1446
<i>Zoophthora radicans</i> 1719	<i>Sorosporella uvella</i> 1123	<i>Hirsutella thompsonii</i> 137 241 253
Thurgau	<i>California</i>	<i>Leptolegnia chapmanii</i> 2562 2680 2682
<i>Beauveria brongniartii</i> 1067 1068 1070 1071 1072 1076 1077	<i>Arthrobotrys dactyloides</i> 2934 3733	<i>Metarhizium anisopliae</i> 1080
Zürich	<i>Arthrobotrys musiformis</i> 3730	<i>Paecilomyces farinosus</i> 2658 2954
<i>Pandora blunckii</i> 1715 1716 1717 1718	<i>Arthrobotrys oligospora</i> 3732	<i>Paecilomyces fumosoroseus</i> 2247 3076 3083 3322 3682
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Unknown state	<i>Basidiobolus microsporus</i> 265 266 267 268 269	<i>Paecilomyces lilacinus</i> 410
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Unknown state	<i>Conidiobolus thrombooides</i> 15 29 115 208	<i>Sorosporella uvella</i> 1856
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<i>Conidiobolus coronatus</i> 525 528	<i>Hirsutella rhossiliensis</i> 2788 2789 2790 2791 2792 2793 2794 2931 2932 2933	Georgia
<i>Metarhizium anisopliae</i> 3609	<i>Hirsutella</i> sp. 2795 2796 2797 2798 2799 2801 2802 2803	<i>Beauveria bassiana</i> 336 337 2676
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<i>Nomuraea rileyi</i> 539	<i>Lagenidium giganteum</i> 1384 3327	<i>Fusarium</i> sp. 2568 2569
<i>Tilletiopsis</i> sp. 527 572 573	<i>Metarhizium anisopliae</i> 1897	Hawaii
Togo	<i>Monacrosporium cionopagum</i> 3349	<i>Beauveria bassiana</i> 3040 3042
Unknown state	<i>Monacrosporium ellipsosporum</i> 3348 3731	<i>Metarhizium anisopliae</i> 3043 3044 3045
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Trinidad and Tobago	<i>Nematoctonus</i> sp. 3351 3352	<i>Beauveria bassiana</i> 2336 2860 2861 2864 2879 2880 2881 2882 2883
Unknown state	<i>Paecilomyces farinosus</i> 1939 3658 3659 3660 3661 3662 3663	<i>Conidiobolus coronatus</i> 2812 2813 2814
<i>Metarhizium anisopliae</i> 3621	<i>Tolyphocladium cylindrosporum</i> 705 1580	<i>Conidiobolus thrombooides</i> 2828 2829 2830 2849 2850
		<i>Fusarium</i> sp. 2333 2337
		<i>Pandora neoaphidis</i> 2874 2875 2876 3240 3365 3366 3367
		<i>Stachybotrys</i> sp. 2863
		<i>Unidentified</i> 3368

<i>Verticillium lecanii</i> 2334 2858 2859 2862 2877 2878	<i>Paecilomyces farinosus</i> 3	<i>Furia ithacensis</i> 663
<i>Verticillium</i> sp. 2332	<i>Pandora bullata</i> 116	<i>Furia pieris</i> 781
<i>Zoophthora radicans</i> 2811	<i>Penicillium</i> sp. 3036	<i>Gliocladium roseum</i> 3001
Illinois	<i>Verticillium ?cephalosporum</i> 3035	<i>Hirsutella brownorum</i> 3509
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<i>Zoophthora phytonomi</i> 3342 3343 3344	Michigan	<i>Hymenostilbe verrucosa</i> 2002
<i>Zoophthora radicans</i> 1938 2549 2550 2551 2552 2716 2717 2718 2719 2720 3283 3284	<i>Beauveria bassiana</i> 2580	<i>Metarhizium anisopliae</i> 1280 1298 1878 2547 2548
Kansas	<i>Conidiobolus</i> sp. 1967	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3108 3211 3330 3331 3332 3333 3334 3335 3336 3337 3338 3339 3340
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Kentucky	Mississippi	<i>Pandora delphacis</i> 3062 3072 3093 3094 3095 3096 3106 3107
<i>Beauveria bassiana</i> 2270 2271	<i>Nomuraea rileyi</i> 135	<i>Pandora dipterigena</i> 1887 1923
<i>Paecilomyces farinosus</i> 2269	Missouri	<i>Pandora neaphidis</i> 1570 2583 2584 2585 2587 2588 2589 2591 2592 2593 2594 2754 2755 2756 2757 2758 2760 2761 2762 2763 2766 2767 2768 2769 2773 2781 2782 2783 2784 2837 2838 2839 2840 2842 2844 2845 2846 2847 2848 2851 2852 2853 2854 2855 2856 2865 2866 2867 2868 2870 2872 2873
<i>Pandora neoaphidis</i> 3411 3412 3459	<i>Conidiobolus obscurus</i> 3088 3089 3090 3091 3092	Unidentified 1922 2999 3128 3735
Unidentified 3239	<i>Conidiobolus thrombooides</i> 22 2914	<i>Verticillium balanoides</i> 3173
<i>Verticillium lecanii</i> 810	<i>Entomophaga calopteni</i> 408	<i>Verticillium lecanii</i> 900 3257 3600 3601
Louisiana	<i>Sorosporella</i> sp. 377	<i>Zoophthora occidentalis</i> 2841 3027 3028 3029 3071 3073
<i>Basidiobolus ranarum</i> 2787	Nebraska	<i>Zoophthora phytonomi</i> 202
<i>Candida</i> sp. 1857	<i>Beauveria bassiana</i> 3111 3112	<i>Zoophthora radicans</i> 237 238 239 800 1921 3100 3104 3105 3376 3377 3390
<i>Conidiobolus coronatus</i> 2715	Nevada	North Carolina
<i>Conidiobolus lampragues</i> 2338	<i>Ascospshaera aggregata</i> 689	<i>Conidiobolus brefeldianus</i> 452
<i>Conidiobolus osmodes</i> 447	<i>Entomophaga maimaiga</i> 2780	<i>Conidiobolus</i> sp. 3409
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<i>Lagenidium giganteum</i> 749	<i>Verticillium lecanii</i> 3258	<i>Hirsutella thompsonii</i> 254
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<i>Beauveria bassiana</i> 252 353	<i>Fusarium</i> sp. 3030 3031 3032	<i>Metarhizium anisopliae</i> 23
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<i>Hirsutella gigantea</i> 30 177 178	<i>Conidiobolus thrombooides</i> 3129 3136	Oklahoma
<i>Pandora dipterigena</i> 131	<i>Drechmeria coniospora</i> 3354	<i>Beauveria bassiana</i> 2455
<i>Pandora neaphidis</i> 181	<i>Entomophaga aulicae</i> 3016 3039 3212 3602	Oregon
<i>Pandora noutryi</i> 199	<i>Entomophaga conglomerata</i> 2273	<i>Acremonium berkeleyanum</i> 2067
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<i>Verticillium lecanii</i> 204	<i>Entomophaga maimaiga</i> 3052 3053	<i>Ascospshaera aggregata</i> 690
<i>Zoophthora occidentalis</i> 207	<i>Entomophaga tabanivora</i> 627	<i>Ascospshaera apis</i> 691 692
<i>Zoophthora radicans</i> 21 44 45 50 52 88 141 142 143 144 145 146 163 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235	<i>Entomophthora muscae</i> 454 556 557 651 803 826 2014 3074	<i>Ascospshaera atra</i> 693
Maryland	<i>Erynia aquatica</i> 750 764	<i>Beauveria bassiana</i> 201 2054
<i>Aspergillus flavus</i> 2833	<i>Erynia conica</i> 2274 2275 2277	<i>Filobasidiella arachnophila</i> 2058
<i>Basidiobolus</i> sp. 270	<i>Erynia curvispora</i> 802	<i>Fusarium avenaceum</i> 2060
<i>Beauveria bassiana</i> 2831 3404 3529 3530	<i>Erynia rhizospora</i> 801 2276	<i>Fusarium merismoides</i> 2059
<i>Conidiobolus adiaeetus</i> 451	<i>Fusarium polyphialidicum</i> 3692 3693	<i>Humicola</i> sp. 2069
<i>Candida</i> sp. 1877		<i>Metarhizium anisopliae</i> 2107
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<i>Penicillium</i> sp. 2834 2836		
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<i>Paecilomyces farinosus</i> 2057 2937	<i>Paecilomyces farinosus</i> 3490 3493	<i>Zoophthora radicans</i> 2240 2241 2242
<i>Penicillium thomii</i> 2056	3494 3496 3497 3501 3502 3503 3504	2243 2244 2245 2246 2286 2287 2696
<i>Phialophora malorum</i> 2072	3505 3508 3664 3665	2700 2701 2702 2706 2708 2713 3119
<i>Phoma cava</i> 2071		3149 3150 3159 3160 3164 3165 3170
Sterile mycelium 2073		3171
<i>Trichothecium roseum</i> 2055		Bosnia and Herzegovina
Unidentified 2528	<i>Beauveria bassiana</i> 344 1079 3385	<i>Pandora neoaphidis</i> 2123
<i>Verticillium coccosporum</i> 2064	3386 3387	Croatia
<i>Verticillium fungicola</i> 2065	<i>Conidiobolus</i> sp. 3383 3384	<i>Beauveria bassiana</i> 509
<i>Verticillium lecanii</i> 2066	<i>Metarhizium anisopliae</i> 3388 3389	Serbia
Pennsylvania	<i>Pandora neoaphidis</i> 3234 3237 3238	<i>Beauveria bassiana</i> 503 504
<i>Aphanomyces</i> sp. 2005	3241 3410	Voyvodina
<i>Beauveria bassiana</i> 2976 3528		<i>Pandora neoaphidis</i> 2017 2018 2019
<i>Catenaria anguillulae</i> 2015		2020
<i>Hirsutella rhossiliensis</i> 2006 2007		Unidentified 2022
2008		
<i>Lagenidium caudatum</i> 2003	Zimbabwe	
<i>Leptolegnia</i> sp. 2004	<i>Paecilomyces farinosus</i> 3495 3517	Unknown state
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3499 3500 3506 3523		
<i>Verticillium lecanii</i> 3252 3253 3254	West Virginia	
3255	<i>Verticillium</i> sp. 3531	
Puerto Rico	<i>Beauveria bassiana</i> 793 3216	
<i>Conidiobolus coronatus</i> 1147	<i>Conidiobolus paulus</i> 450	
<i>Cladosporium cladosporioides</i> 3375	<i>Conidiobolus thromboides</i> 649	
Rhode Island	<i>Metarhizium anisopliae</i> 794	
<i>Beauveria bassiana</i> 317 318	<i>Verticillium lecanii</i> 795	
South Carolina	<i>Zoophthora radicans</i> 1018 1019 1020	
<i>Arthrobotrys oligospora</i> 3347	1021 1261 1262	
<i>Leptolegnia chapmani</i> 2681		
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South Dakota	<i>Entomophaga calopteni</i> 383 390	
<i>Beauveria bassiana</i> 2579		
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Tennessee		
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Texas	<i>Verticillium lecanii</i> 974	
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3581 3582 3583 3584 3585 3586 3587		
3588 3589 3590 3591 3592 3593 3594	Wales	
Vermont		
<i>Beauveria bassiana</i> 3543	Powys	
<i>Entomophaga aulicae</i> 2843	<i>Erynia rhizospora</i> 1442	
<i>Hirsutella</i> sp. 1 2939 2940		
<i>Hirsutella</i> sp. 3546 3548 3553	Western Samoa	
<i>Metarhizium anisopliae</i> 3540 3541		
3542 3544	Apia	
<i>Paecilomyces farinosus</i> 3537 3538	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 2223	
3564	<i>Metarhizium anisopliae</i> var. <i>majus</i> 297 298	
<i>Paecilomyces</i> sp. 3545		
Unidentified 3560 3567 3568 3569	USSR	
3570 3571	See <i>Commonwealth of Independent States.</i>	
<i>Verticillium ?lecanii</i> 3315 3316 3317		
<i>Verticillium lecanii</i> 2930 3314 3318	Yugoslavia	
3554 3555 3557 3558 3559 3562 3563		
<i>Verticillium</i> sp. 3539 3547 3549 3550	Unknown state	
3551 3552 3556 3561	<i>Beauveria bassiana</i> 505 506 507 510	
Virginia	<i>Conidiobolus</i> sp. 1426	
<i>Beauveria bassiana</i> 3405 3527	<i>Pandora neoaphidis</i> 1695 1784 1785	
<i>Conidiobolus pumilus</i> 453	1786 1824 1825 1826 1827 2124 2128	
<i>Fusarium polyphialidicum</i> 3695	Unidentified 1693 1694	
	<i>Verticillium lecanii</i> 1787	
	<i>Zoophthora radicans</i> 2282 2283 2284	
	2285 2288 2289 2703 2709 2712 3114	
	3115 3116	
	Belgrade	
	<i>Batkoia major</i> 1427	
	<i>Conidiobolus</i> sp. 2130	
	<i>Erynia</i> sp. 2279 2292 2294	
	<i>Pandora neoaphidis</i> 1696 2016 2108	
	2109 2110 2111 2112 2114 2115 2116	
	2117 2118 2119 2120 2121 2122 2280	
	2293 2298	

Alternate Collections

Abbott Laboratories
Aoki, Joji

Abbott Laboratories

- 102A *Beauveria bassiana* 1782
- 102B(2) *Beauveria bassiana* 1838
- 104, 106 *Beauveria bassiana* 1783
- 106 *Beauveria bassiana* 1839
- 106(2) *Beauveria bassiana* 1652
- 112 *Beauveria bassiana* 1654
- 114(2) *Beauveria bassiana* 1653
- 122-1 *Beauveria bassiana* 1651
- 124 *Beauveria bassiana* 1747
- 1985-3-69 *Beauveria bassiana* 1889
- 89-201 *Beauveria bassiana* 2695
- AARC 8401-A(1) *Beauveria bassiana*
1689
- AARC 8401-A(2) *Beauveria bassiana*
1690
- AARC 8401-B *Beauveria bassiana* 1691
- AARC 8401-D *Beauveria bassiana* 1692
- Bb028-138 *Beauveria bassiana* 1843
- Bb028-148 *Beauveria bassiana* 1844
- Bb028-150 *Beauveria bassiana* 1845
- Bb028-5F *Beauveria bassiana* 1842
- Bb029-13 *Beauveria bassiana* 1846
- Bb029-13, "3 of 4" *Beauveria bassiana*
1748

Abrahamson, D.S.

- 5 *Tolypocladium niveum* 3398

Ahn, S.B.

- D2-4 *Metarhizium anisopliae* 2038
- E1-22 *Torrubilla homopterorum* 2045
- E1-7 & E1-5 *Fusarium semitectum* 2053
- E2-13 *Metarhizium anisopliae* 2039
- E5-1 *Beauveria bassiana* 2040

Al-Aidroos, Karen

- 19-1a5 (EMS mutant) *Metarhizium anisopliae* 911
- 19.1 (EMS mutant) *Metarhizium anisopliae* 966
- 42.2 (EMS mutant of 5.42) *Metarhizium anisopliae* 1025
- 42.2a9 (EMS mutant) *Metarhizium anisopliae* 921
- 5.173 (EMS mutant) *Metarhizium anisopliae* 909
- 5.281 (mutant) *Metarhizium anisopliae* 922
- 5.287 (EMS mutant) *Metarhizium anisopliae* 967
- 5.304 (EMS mutant of 5A) *Metarhizium anisopliae* 1022
- 5.378 (EMS mutant) *Metarhizium anisopliae* 965
- 5A (UV irradiated mutant of 5) *Metarhizium anisopliae* 1087
- 5A.1 (EMS mutant of 5A) *Metarhizium anisopliae* 1085
- 5A.10 (EMS mutant of 5A) *Metarhizium anisopliae* 1086
- 5A.11 (EMS mutant of 5A) *Metarhizium anisopliae* 1083
- 5A.12 (EMS mutant of 5A) *Metarhizium anisopliae* 1088
- 5A.7 (EMS mutant of 5A) *Metarhizium anisopliae* 1084

- D198A *Metarhizium anisopliae* 912
- D95A (diploid, recombinant) *Metarhizium anisopliae* 913
- D95A Bes 140 (recombinant) *Metarhizium anisopliae* 910
- DIII 3A (mutant) *Metarhizium anisopliae* 968
- DIII 3B (mutant) *Metarhizium anisopliae* 960
- DIII 3B Bes 48 (recombinant) *Metarhizium anisopliae* 907
- JIIXIV (mutant) *Metarhizium anisopliae* 1091
- JIVD (mutant) *Metarhizium anisopliae* 1097
- JX1.23A (mutant) *Metarhizium anisopliae* 1024
- JX1.23C (mutant) *Metarhizium anisopliae* 1023
- JXIV.245 (mutant) *Metarhizium anisopliae* 1089
- KIIVA (mutant) *Metarhizium anisopliae* 1090
- S7N5 (mutant) *Metarhizium anisopliae* 908

Allee, Leslie

- 84-1 *Beauveria bassiana* 1704
- 84-10 *Beauveria bassiana* 1711
- 84-11 *Beauveria bassiana* 1712
- 84-12 *Beauveria bassiana* 1713
- 84-13 *Beauveria bassiana* 1721
- 84-16 *Beauveria bassiana* 1749
- 84-18 *Beauveria bassiana* 1750
- 84-19 *Beauveria bassiana* 1722
- 84-20 *Beauveria bassiana* 1723
- 84-22 *Beauveria bassiana* 1775
- 84-23 *Beauveria bassiana* 1776
- 84-24 *Beauveria bassiana* 1777
- 84-25 *Beauveria bassiana* 1778
- 84-26 *Beauveria bassiana* 1779
- 84-27 *Beauveria bassiana* 1780
- 84-28 *Beauveria bassiana* 1781
- 84-3 *Beauveria bassiana* 1705
- 84-4 *Beauveria bassiana* 1706
- 84-5 *Beauveria bassiana* 1707
- 84-7 *Beauveria bassiana* 1708
- 84-8 *Beauveria bassiana* 1709
- 84-9 *Beauveria bassiana* 1710

Alves, Sergio Batista

- 196 *Beauveria bassiana* 1484
- 197 *Beauveria bassiana* 1832
- 210 *Beauveria brongniartii* 1830
- 246 *Beauveria bassiana* 1479
- 252 *Beauveria bassiana* 1480
- 256 *Beauveria bassiana* 1478
- 258 *Beauveria brongniartii* 1829
- 267 *Beauveria bassiana* 1833
- 268 *Beauveria bassiana* 1834
- 290 *Beauveria bassiana* 2638
- 290 *Beauveria bassiana* 2559
- 292 *Beauveria bassiana* 2639
- 295 *Beauveria* sp. 1835
- 309 *Beauveria bassiana* 1836
- 447 *Beauveria bassiana* 3734
- 507 *Metarhizium anisopliae* 2561

- 587 Unidentified 2640
- 61 *Beauveria bassiana* 1483
- 621 *Beauveria amorpha* 2641
- 63 *Beauveria bassiana* 1831
- 695 *Beauveria bassiana* 2642
- 715 *Paecilomyces* sp. 2613
- 716 *Paecilomyces* sp. 2614
- 717 *Paecilomyces* sp. 2615
- 718 *Paecilomyces* sp. 2616
- 719 *Paecilomyces* sp. 2617
- 720 *Paecilomyces* sp. 2618
- 721 *Beauveria bassiana* 2619
- 726 *Beauveria bassiana* 2621
- 758 *Paecilomyces* sp. 2620
- SPL-54A *Metarhizium anisopliae* 2560

Aoki, Joji

- Ash. 1 *Aschersonia aleyrodis* 992
- Asp. 11 *Aspergillus flavus* 1003
- Asp. 26 *Aspergillus flavus* 1010
- Beau. 2 *Beauveria* sp. 1040
- Beau. 22 *Beauveria brongniartii* 985
- Beau. 3 *Beauveria bassiana* 1007
- Beau. 5 *Beauveria bassiana* 1001
- Cordy. 1 *Paecilomyces farinosus* 1042
- Ent. 11 *Conidiobolus coronatus* 997
- Ent. 14 *Entomophaga aulicae* 998
- Ent. 15 *Conidiobolus thrombooides* 1006
- Ent. 18 *Erynia* sp. 983
- Ent. 25 *Pandora neoaphidis* 993
- Ent. 26 *Zoophthora radicans* 1050
- Ent. 30 *Pandora blunckii* 1000
- Ent. 34 *Erynia* sp. 1266
- Ent. 35 *Pandora blunckii* 1004
- Ent. 36 *Pandora delphacis* 1101
- Ent. 37 *Erynia* sp. 1267
- Ent. 38 Unidentified 1013
- Ent. 39 Unidentified 1051
- Ent. 42 *Erynia* sp. 1052
- Ent. 45 *Entomophthora* sp. 999
- Ent. 5 *Zoophthora radicans* 1263
- Ent. 6 *Pandora delphacis* 1264
- Ent. 7 *Pandora delphacis* 1265
- Ent. 8 *Zoophthora radicans* 1048
- Ent. 9 *Conidiobolus obscurus* 1131
- Har. 1 *Verticillium lecanii* 1002
- Har. 2 *Verticillium lecanii* 991
- Hir. 1 *Hirsutella satsumaensis* 996
- Isa. 1 *Beauveria bassiana* 1041
- Met. 1 *Metarhizium anisopliae* var.
majus 988
- Met. 4 *Metarhizium anisopliae* var.
majus 1015
- Met. 5 *Metarhizium anisopliae* 1009
- Met. 6 *Metarhizium anisopliae* 1046
- Met. 8 *Metarhizium anisopliae* 1011
- Nom. 1 *Paecilomyces* sp. 1008
- Nom. 2 *Nomuraea rileyi* 1014
- Nom. 3 *Nomuraea rileyi* 1047
- Paec. 1 *Paecilomyces farinosus* 1043
- Paec. 2 *Paecilomyces fumosoroseus* 1005
- Paec. 3 *Paecilomyces fumosoroseus* 989
- Paec. 5 *Paecilomyces lilacinus* 986
- Paec. 6 *Paecilomyces canadensis* 984
- Paec. 7 *Paecilomyces canadensis* 990
- Vert. 1 *Verticillium lecanii* 994

ARSEF

101 *Conidiobolus thromboides* 1733
 102 *Conidiobolus thromboides* 363
 102 *Conidiobolus thromboides* 1734
 103 *Zoophthora radicans* 823
 103 *Zoophthora radicans* 370
 103 *Zoophthora radicans* 359
 1035 *Hirsutella citriformis* 1446
 1045 *Metarhizium anisopliae* 1299
 1103 *Beauveria bassiana* 1558
 1140 *Entomophaga aulicae* 1656
 1142 (lost) *Entomophaga aulicae* 1655
 115 *Conidiobolus thromboides* 15
 115 *Conidiobolus thromboides* 208
 115 *Conidiobolus thromboides* 3360
 117 (lost) *Conidiobolus thromboides* 42
 1184 *Metarhizium flavoviride* 2024
 1299 *Metarhizium anisopliae* 1045
 133 *Conidiobolus obscurus* 355
 1331 *Fusarium lateritium* 1416
 1336 *Zoophthora radicans* 1428
 1356 Unidentified 1420
 1416 *Fusarium lateritium* 1331
 1420 Unidentified 1356
 1428 *Zoophthora radicans* 1336
 1446 *Hirsutella citriformis* 1035
 1451 (deaccessioned) *Beauveria bassiana* 1971
 1452 (deaccessioned) *Metarhizium anisopliae* var. *anisopliae* 1989
 1481 (lost) *Beauveria brongniartii* 1829
 1482 (lost) *Beauveria brongniartii* 1830
 15 *Conidiobolus thromboides* 115
 15 *Conidiobolus thromboides* 208
 15 *Conidiobolus thromboides* 3361
 1544 *Zoophthora radicans* 1595
 1557 (deaccessioned) *Hirsutella versicolor* 1034
 1558 *Beauveria bassiana* 1103
 1595 *Zoophthora radicans* 1544
 1656 *Entomophaga aulicae* 1140
 1660 *Batko a apiculata* 927
 1661 *Batko a apiculata* 919
 1667 (deaccessioned) Unidentified 1634
 1733 *Conidiobolus thromboides* 101
 1734 *Conidiobolus thromboides* 102
 1734 *Conidiobolus thromboides* 363
 1869 (lost) *Zoophthora phalloides* 352
 193 (lost) *Conidiobolus osmodes* 447
 2 *Conidiobolus thromboides* 3364
 2024 *Metarhizium flavoviride* 1184
 208 *Conidiobolus thromboides* 15
 208 *Conidiobolus thromboides* 115
 212 (deaccessioned) *Eryniopsis caroliniana* 642
 213 (deaccessioned) *Eryniopsis caroliniana* 640
 2210 *Metarhizium* sp. 2225
 2225 *Metarhizium* sp. 2210
 23 *Metarhizium anisopliae* 1097
 23 *Metarhizium anisopliae* 1094
 23 *Metarhizium anisopliae* 1091
 23 *Metarhizium anisopliae* 1090
 23 *Metarhizium anisopliae* 1089
 23 *Metarhizium anisopliae* 1088
 23 *Metarhizium anisopliae* 1087

23 *Metarhizium anisopliae* 1086
 23 *Metarhizium anisopliae* 1085
 23 *Metarhizium anisopliae* 1084
 23 *Metarhizium anisopliae* 1083
 23 *Metarhizium anisopliae* 1025
 23 *Metarhizium anisopliae* 1024
 23 *Metarhizium anisopliae* 1023
 23 *Metarhizium anisopliae* 1022
 23 *Metarhizium anisopliae* 968
 23 *Metarhizium anisopliae* 967
 23 *Metarhizium anisopliae* 966
 23 *Metarhizium anisopliae* 965
 23 *Metarhizium anisopliae* 960
 23 *Metarhizium anisopliae* 922
 23 *Metarhizium anisopliae* 921
 23 *Metarhizium anisopliae* 913
 23 *Metarhizium anisopliae* 912
 23 *Metarhizium anisopliae* 911
 23 *Metarhizium anisopliae* 910
 23 *Metarhizium anisopliae* 909
 23 *Metarhizium anisopliae* 908
 23 *Metarhizium anisopliae* 907
 2336 *Beauveria bassiana* 2883
 2348 *Hirsutella repens* 2359
 2348 *Hirsutella repens* 2394
 2350 *Paecilomyces* sp. 2378
 2351 *Aschersonia insperata* 2397
 2352 *Hirsutella guyana* 2387
 2359 *Hirsutella repens* 2348
 2359 *Hirsutella repens* 2394
 2375 (never frozen) *Paecilomyces farinosus* 2344
 2377 (never frozen) *Paecilomyces* sp. 2354
 2378 *Paecilomyces* sp. 2350
 2379 (never frozen) *Paecilomyces farinosus* 2355
 2380 (never frozen) *Paecilomyces reniformis* 2340
 2381 (never frozen) *Metarhizium anisopliae* 2341
 2382 (never frozen) *Metarhizium anisopliae* 2353
 2383 (never frozen) *Metarhizium anisopliae* 2341
 2384 (never frozen) *Metarhizium anisopliae* 2342
 2385 (never frozen) *Metarhizium anisopliae* 2343
 2387 *Hirsutella guyana* 2352
 2388 (never frozen) *Hirsutella citriformis* 2346
 2389 (never frozen) *Hirsutella citriformis* 2347
 2390 (never frozen) *Nomuraea rileyi* 2345
 2391 (never frozen) *Aschersonia insperata* 2356
 2392 (never frozen) *Aschersonia insperata* 2357
 2393 (never frozen) *Aschersonia insperata* 2358
 2394 *Hirsutella repens* 2348
 2394 *Hirsutella repens* 2359
 2397 *Aschersonia insperata* 2351
 2524 (deaccessioned) *Zoophthora radicans* 2499
 2559 *Beauveria bassiana* 2638
 2562 *Leptolegnia chapmanii* 2680
 2575 *Metarhizium anisopliae* 3608
 258 *Hirsutella thompsonii* 414
 2638 *Beauveria bassiana* 2559
 2649 *Hirsutella* sp. 2992
 2650 *Hirsutella guyana* 2993
 2662 (deaccessioned) *Erynia* sp. 2553
 2669 (deaccessioned) *Zoophthora radicans* 2554
 2680 *Leptolegnia chapmanii* 2562
 2700 *Zoophthora radicans* 3171
 2701 *Zoophthora radicans* 3119
 2703 *Zoophthora radicans* 3116
 2706 *Zoophthora radicans* 3149
 2709 *Zoophthora radicans* 3114
 2713 *Zoophthora radicans* 3164
 2883 *Beauveria bassiana* 2336
 2992 *Hirsutella* sp. 2649
 2993 *Hirsutella* sp. 2650
 3114 *Zoophthora radicans* 2709
 3116 *Zoophthora radicans* 2703
 3119 *Zoophthora radicans* 2701
 3149 *Zoophthora radicans* 2706
 3164 *Zoophthora radicans* 2713
 3171 *Zoophthora radicans* 2700
 3283 *Zoophthora radicans* 3284
 3284 *Zoophthora radicans* 3283
 332 (lost) *Entomophaga australiensis* 331
 3328 (deaccessioned) *Lagenidium giganteum* 3327
 3353 (deaccessioned) *Arthrobotrys dactyloides* 2934
 3359 *Conidiobolus thromboides* 41
 3360 *Conidiobolus thromboides* 15
 3360 *Conidiobolus thromboides* 115
 3360 *Conidiobolus thromboides* 208
 3361 *Conidiobolus thromboides* 15
 3361 *Conidiobolus thromboides* 115
 3361 *Conidiobolus thromboides* 208
 3362 *Conidiobolus thromboides* 40
 3363 *Conidiobolus thromboides* 70
 3364 *Conidiobolus thromboides* 2
 3397 (deaccessioned) *Tolyphocladium niveum* 3321
 354 *Conidiobolus obscurus* 824
 355 *Conidiobolus obscurus* 133
 359 *Zoophthora radicans* 823
 359 *Zoophthora radicans* 370
 363 *Conidiobolus thromboides* 102
 363 *Conidiobolus thromboides* 1734
 368 *Myriodontium keratinophilum* 386
 369 *Pandora kondoensis* 825
 370 *Zoophthora radicans* 823
 370 *Zoophthora radicans* 359
 386 *Myriodontium keratinophilum* 368
 40 *Conidiobolus thromboides* 3362
 41 *Conidiobolus thromboides* 3359
 414 *Hirsutella thompsonii* 258
 424 (lost) *Eryniopsis caroliniana* 641
 466 (lost) *Entomophthora muscae* 392
 467 (lost) *Zoophthora aphidis* 425
 541 (lost) *Culicinomyces clavisporus* 644
 62 (lost) *Zoophthora radicans* 3623
 643 (lost) *Zoophthora aphidis* 425

Alternate Collections

ARSEF
Brownbridge, Michael

70 *Conidiobolus thrombooides* 3363
 746 (deaccessioned) *Lagenidium giganteum* 373
 82 (lost) *Zoophthora phytonomi* 113
 823 *Zoophthora radicans* 370
 823 *Zoophthora radicans* 359
 824 *Conidiobolus obscurus* 354
 825 *Pandora kondoensis* 369
 84 *Conidiobolus thrombooides* 85
 85 *Conidiobolus thrombooides* 84
 86 *Conidiobolus thrombooides* 87
 87 *Conidiobolus thrombooides* 86
 888 (deaccessioned) *Metarhizium anisopliae* 872
 9 (lost) *Pandora bullata* 116
 919 *Batkoia apiculata* 1661
 927 *Batkoia apiculata* 1660
 96 (lost) *Conidiobolus coronatus* 1738
 995 (deaccessioned) *Conidiobolus obscurus* 1131
 ?1066 *Pandora dipterigena* 397
 ?1096 *Hirsutella citriformis* 1256
 ?1256 *Hirsutella* sp. 1096
 ?1294 *Metarhizium flavoviride* var. *minus* 1295
 ?1295 *Metarhizium flavoviride* var. *minus* 1294
 ?1377 *Zoophthora anglica* 396
 ?1940 *Lagenidium giganteum* 2529
 ?198 *Entomophaga aulicae* 998
 ?2529 *Crypticola clavulifera* 1940
 ?2696 *Zoophthora radicans* 3161
 ?2702 *Zoophthora radicans* 3117
 ?2708 *Zoophthora radicans* 3163
 ?3117 *Zoophthora radicans* 2702
 ?3161 *Zoophthora radicans* 2696
 ?3163 *Zoophthora radicans* 2708
 ?396 *Metarhizium anisopliae* 1377
 ?397 *Metarhizium anisopliae* 1066
 ?411 *Hirsutella thompsonii* 255
 ?426 *Zoophthora lanceolata* 468
 ?468 *Zoophthora lanceolata* 426
 ?998 *Entomophaga aulicae* 198

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12584 *Conidiobolus pumilus* 453
 12588 *Conidiobolus rhysosporus* 448
 12589 *Conidiobolus adiaeetus* 451
 12590 *Conidiobolus osmodes* 447
 12942 *Conidiobolus paulus* 450
 14270 *Conidiobolus thrombooides* 208
 14270 *Conidiobolus thrombooides* 115
 14270 *Conidiobolus thrombooides* 15
 16576 *Conidiobolus bangalorensis* 449
 18981 *Tolypocladium niveum* 616
 24298 *Pandora bullata* 116
 24318 *Beauveria bassiana* 1
 24319 *Paecilomyces farinosus* 3
 24418 *Conidiobolus obscurus* 74
 24419 *Conidiobolus thrombooides* 73
 24493 *Zoophthora radicans* 72
 24874 *Hirsutella thompsonii* 137
 26156 *Beauveria brongniartii* 617
 28691 *Conidiobolus coronatus* 205
 28847 *Conidiobolus brefeldianus* 452
 3010 *Hirsutella thompsonii* 255

32245 *Zoophthora radicans* 3623
 32797 *Zoophthora radicans* 189
 32867 *Conidiobolus coronatus* 206
 32969 *Metarhizium flavoviride* 2133
 34292 *Zoophthora phytonomi* 113
 34698 *Pandora blunckii* 217
 34948 *Nomuraea anemonoides* 2467
 36654 *Tolypocladium niveum* 3433
 42438 *Tolypocladium cylindrospororum* 962
 46576 *Verticillium balanoides* 2483
 52635 *Culicinomyces clavisporus* 964
 56502 *Tolypocladium geodes* 3274
 58381 *Aphanomyces* sp. 2005
 58382 *Catenaria anguillulae* 2015
 58383 *Lagenidium caudatum* 2003
 58384 *Leptolegnia* sp. 2004
 60335 *Metarhizium anisopliae* var. *anisopliae* 925
 60336 *Metarhizium anisopliae* var. *anisopliae* 1894
 64258 *Mortierella hyalina* 2061
 64259 *Verticillium coccosporum* 2064
 64864 *Mortierella clausenii* 2062
 64865 *Acremonium berkeleyanum* 2067
 76239 *Crypticola clavulifera* 1940
 76240 *Lagenidium giganteum* 2531

Balazy, Stanislaw

1428 *Verticillium lecanii* 1330
 1431 *Polycephalomyces formosus* 1424
 1437 *Fusarium lateritium* 1416
 1437 *Fusarium lateritium* 1331
 1441 *Hirsutella radiata* 1369
 1451' Unidentified 1419
 1453c *Verticillium lecanii* 1333
 1453k *Verticillium lecanii* 1334
 1480 *Verticillium lecanii* 1332
 1496c *Pandora dipterigena* 1422
 1508m Unidentified 1423
 1539 *Verticillium lecanii* 1335
 1541 *Verticillium lecanii* 1367
 1547b Unidentified 1417
 1550 Unidentified 1415
 1552 Unidentified 1421
 1555 *Zoophthora radicans* 1428
 1555 *Zoophthora radicans* 1336
 1558b *Zoophthora radicans* 1337
 1559 *Erynia* sp. 1338
 1561 *Furia ithacensis* 1339
 1561a *Furia ithacensis* 1340
 1577/6 *Zoophthora radicans* 1341
 1577/7 *Zoophthora radicans* 1342
 1577/8 *Zoophthora radicans* 1343
 1578/1 *Zoophthora radicans* 1344
 1578/1-2 *Zoophthora radicans* 1346
 1578/2 *Zoophthora radicans* 1345
 1580b *Basidiobolus haptospora* 1347
 1584c *Paecilomyces farinosus* 1348
 1584e *Paecilomyces farinosus* 1349
 1585a *Tritirachium isariae* 1425
 1589 *Zoophthora radicans* 1350
 1592 *Verticillium lecanii* 1351
 1592b *Verticillium lecanii* 1352
 1594 Sterile mycelium 1353
 1594a *Paecilomyces farinosus* 1354

1594b *Paecilomyces farinosus* 1355
 1594d *Beauveria brongniartii* 1366
 1595c Unidentified 1420
 1595c Unidentified 1356
 1595d *Verticillium lecanii* 1357
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- 3C(2) *Hirsutella citriformis* 1251
- 3D *Hirsutella citriformis* 1250
- 3F *Hirsutella citriformis* 1252
- 3G *Hirsutella citriformis* 1253
- 4A *Hirsutella* sp. 1096
- 4A *Hirsutella citriformis* 1256
- 4B *Hirsutella citriformis* 1255
- 4B(a) *Hirsutella citriformis* 1254
- 4C *Hirsutella citriformis* 1257
- 5B *Hirsutella citriformis* 1258
- 5C *Hirsutella citriformis* 1259
- GA *Hirsutella citriformis* 1064
- O2III *Beauveria bassiana* 1270
- Pal. 2 *Beauveria bassiana* 1269

Jaffee, Bruce A.

- A01 *Arthrobotrys oligospora* 3347
- Ad3 *Arthrobotrys dactyloides* 2934
- Ca2 *Catenaria anguillulae* 2015
- CR106 *Arthrobotrys dactyloides* 3733
- G20 *Monacrosporium cionopagum* 3349
- H59 *Hirsutella thompsonii* 2800
- H69 *Hirsutella* sp. 2803
- HR31 *Hirsutella rhossiliensis* 2006
- HR42 *Hirsutella rhossiliensis* 2007
- HR43 *Hirsutella rhossiliensis* 2008
- HR58 *Hirsutella* sp. 2799
- HR63 *Hirsutella* sp. 2801
- HR65 *Hirsutella* sp. 2802
- HR72 *Hirsutella rhossiliensis* 2788
- HR73 *Hirsutella rhossiliensis* 2789
- HR74 *Hirsutella rhossiliensis* 2790
- HR75 *Hirsutella rhossiliensis* 2791
- HR76 *Hirsutella rhossiliensis* 2792
- HR77 *Hirsutella rhossiliensis* 2793
- HR78 *Hirsutella rhossiliensis* 2794
- HR79a *Hirsutella* sp. 2795
- HR79b *Hirsutella* sp. 2796
- HR79c *Hirsutella* sp. 2797
- HR79d *Hirsutella* sp. 2798
- HR80 *Hirsutella rhossiliensis* 2931
- HR81 *Hirsutella rhossiliensis* 2932
- HR82 *Hirsutella rhossiliensis* 2933
- Lag3 *Aphanomyces* sp. 2005
- LcD *Lagenidium caudatum* 2003
- M-19 *Drechmeria coniospora* 3346
- MK100a *Monacrosporium ellipsosporum* 3731
- MN101 *Arthrobotrys musiformis* 3730
- MN103 *Arthrobotrys oligospora* 3732
- WPG *Leptolegnia* sp. 2004

John, Padmore

- 74 \ominus *Arthrobotrys dactyloides* 3373
- Ar2 *Arthrobotrys oligospora* var. *oligospora* 3370
- Ar \square *Arthrobotrys oligospora* var. *oligospora* 3369
- Rh2 *Arthrobotrys dactyloides* 3372
- Rh Δ *Arthrobotrys dactyloides* 3371

Jones, Wendy E.

- 499v2 *Beauveria bassiana* 3041
- FLS *Metarhizium anisopliae* 3043
- FST *Metarhizium anisopliae* 3045
- Hara *Beauveria bassiana* 3042
- SHB *Beauveria bassiana* 3040
- WSP *Metarhizium anisopliae* 3044

Kawakami, K.

- 621 *Metarhizium anisopliae* var. *majus* 1092
- 773 *Metarhizium anisopliae* var. *majus* 1093

Alternate Collections

Keller, Siegfried
Kuter, Geoffrey A.

Keller, Siegfried

100 *Erynia ovispora* 399
102 *Erynia ovispora* 400
114 *Entomophaga aulicæ* 393
115 *Zoophthora lanceolata* 469
117 *Beauveria brongniartii* 1067
118 *Beauveria brongniartii* 1068
119 *Beauveria brongniartii* 1069
120 *Beauveria brongniartii* 1070
125 *Beauveria brongniartii* 1071
126 *Beauveria brongniartii* 1072
131 *Beauveria brongniartii* 1076
134 *Beauveria brongniartii* 1077
165 *Beauveria brongniartii* 1871
166 *Beauveria brongniartii* 1872
167 *Beauveria brongniartii* 1873
168 *Beauveria brongniartii* 1874
169 *Beauveria brongniartii* 1875
21 *Conidiobolus* sp. 391
214 *Zoophthora radicans* 388
217 *Zoophthora radicans* 389
24 *Furia virescens* 394
250 *Furia virescens* 427
251 *Furia virescens* 470
35 *Batkoaa apiculata* 395
36 *Batkoaa gigantea* 403
39 *Entomophthora muscae* 392
41 *Eryniopsis caroliniana* 641
411 *Zoophthora anglica* 916
412 *Zoophthora anglica* 926
416 *Furia virescens* 1129
425 *Pandora blunckii* 917
426 *Pandora blunckii* 915
430 *Pandora blunckii* 920
44 *Metarhizium anisopliae* 1373
444 *Zoophthora radicans* 1130
445 *Zoophthora radicans* 914
449 *Batkoaa apiculata* 1660
449 *Batkoaa apiculata* 927
45 *Metarhizium anisopliae* 1374
450 *Batkoaa apiculata* 1661
450 *Batkoaa apiculata* 919
46 *Metarhizium anisopliae* 1375
47 *Metarhizium anisopliae* 1376
478 *Conidiobolus pseudapiculatus* 1662
48 *Metarhizium anisopliae* 1377
48 *Zoophthora anglica* 396
480 *Conidiobolus pseudapiculatus* 1664
482 *Conidiobolus pseudapiculatus* 1665
490 *Conidiobolus coronatus* 1572
491 *Conidiobolus coronatus* 1573
493 *Conidiobolus coronatus* 1574
494 *Conidiobolus coronatus* 1575
514 *Pandora blunckii* 1715
515 *Pandora blunckii* 1716
516 *Pandora blunckii* 1717
517 *Pandora blunckii* 1718
520 *Zoophthora radicans* 1719
521 *Pandora dipterigena* 1720
527 *Erynia conica* 1752
528 *Erynia conica* 1753
529 *Erynia curvispora* 1754
55 *Entomophaga culicæ* 387
59 *Zoophthora radicans* 404
65 *Eryniopsis caroliniana* 642
69 *Eryniopsis caroliniana* 640

74 *Batkoaa gigantea* 214
75 *Batkoaa gigantea* 215
84 *Zoophthora aphidis* 425
92 *Metarhizium anisopliae* 1066
92 *Pandora dipterigena* 397
95 *Zoophthora lanceolata* 468
95 *Zoophthora lanceolata* 426
D155 *Beauveria bassiana* 1566
D156 *Beauveria bassiana* 1567
Ma 43 *Metarhizium anisopliae* 1095
Ma52(S4) *Metarhizium anisopliae* 1910

Kenneth, Robert G.

2884 *Zoophthora radicans* 189
3 *Conidiobolus osmodes* 79
3022 *Conidiobolus thrombooides* 15
3022 *Conidiobolus thrombooides* 115
3022 *Conidiobolus thrombooides* 208
3023 *Conidiobolus thrombooides* 41
3024 *Conidiobolus thrombooides* 40
3025 *Conidiobolus thrombooides* 42
3029 *Zoophthora radicans* 3623
3035 *Conidiobolus thrombooides* 15
3035 *Conidiobolus thrombooides* 115
3035 *Conidiobolus thrombooides* 208
3040 *Conidiobolus thrombooides* 73
3043 *Conidiobolus obscurus* 74
3044 *Zoophthora radicans* 189
3045 *Zoophthora radicans* 44
3046 *Zoophthora radicans* 72
3060 *Zoophthora radicans* 75
3072 *Pandora neoaphidis* 78
3080 *Conidiobolus osmodes* 79
3081 *Zoophthora radicans* 80
3082 *Zoophthora radicans* 81
3085 *Zoophthora phytonomi* 113
3086 *Conidiobolus thrombooides* 83
3095 *Zoophthora phytonomi* 191
3096 *Zoophthora radicans* 114
3097 *Zoophthora radicans* 139
3098 *Pandora nr. echinospora* 138
3100 *Zoophthora radicans* 103
3101 *Zoophthora radicans* 104
3102 *Zoophthora radicans* 105
3103 *Zoophthora radicans* 106
3104 *Zoophthora radicans* 107
3105 *Zoophthora radicans* 108
3106 *Zoophthora radicans* 109
3107 *Zoophthora radicans* 110
3109 *Zoophthora radicans* 111
3110 *Zoophthora radicans* 112
3123 *Conidiobolus osmodes* 447
3133 *Zoophthora phytonomi* 192
3134 *Zoophthora radicans* 195
3136 *Entomophaga aulicæ* 198
3178 *Zoophthora phytonomi* 202
C.o. 10 *Zoophthora radicans* 81
C.o. 15 *Zoophthora radicans* 80
E.a. 11 *Pandora neoaphidis* 78
E.a. 38 *Conidiobolus thrombooides* 83
E.p. 2 *Zoophthora phytonomi* 191
E.s. 28 *Zoophthora radicans* 75
E.s. 29 *Zoophthora radicans* 114
E.s. 30 *Zoophthora radicans* 139
E.s. 31 *Zoophthora radicans* 103
E.s. 32 *Zoophthora radicans* 104

E.s. 33 *Zoophthora radicans* 105
E.s. 34 *Zoophthora radicans* 106
E.s. 35 *Zoophthora radicans* 107
E.s. 36 *Zoophthora radicans* 108
E.s. 37 *Zoophthora radicans* 109
E.s. 38 *Zoophthora radicans* 110
E.s. 40 *Zoophthora radicans* 111
E.s. 41 *Zoophthora radicans* 112

Kerwin, James L.

BS *Lagenidium giganteum* 3327

King, D.S.

75 *Conidiobolus coronatus* 205
C-23 *Conidiobolus adiaceretus* 451
C-31 *Conidiobolus brefeldianus* 452
C-32 *Conidiobolus pumilus* 453
M-7 *Conidiobolus osmodes* 447

Knight, A.L.

LG/NC-2 *Lagenidium giganteum* 748

Krueger, Steve V.

540 *Beauveria bassiana* 3460
549 *Paecilomyces farinosus* 3461
MaEC1 *Metarhizium anisopliae* var.
anisopliae 3108
MaEC2 *Metarhizium anisopliae* var.
anisopliae 3211
MaJB1 *Metarhizium anisopliae* var.
anisopliae 3330
MaJB10 *Metarhizium anisopliae* var.
anisopliae 3337
MaJB11 *Metarhizium anisopliae* var.
anisopliae 3338
MaJB12 *Metarhizium anisopliae* var.
anisopliae 3339
MaJB13 *Metarhizium anisopliae* var.
anisopliae 3340
MaJB2 *Metarhizium anisopliae* var.
anisopliae 3331
MaJB3 *Metarhizium anisopliae* var.
anisopliae 3332
MaJB6 *Metarhizium anisopliae* var.
anisopliae 3333
MaJB7 *Metarhizium anisopliae* var.
anisopliae 3334
MaJB8 *Metarhizium anisopliae* var.
anisopliae 3335
MaJB9 *Metarhizium anisopliae* var.
anisopliae 3336
MF-Ec Unidentified 2999
MF-S *Gliocladium roseum* 3001

KSU

RLCO *Beauveria bassiana* 792

Kuter, Geoffrey A.

102 *Beauveria bassiana* 793
182 *Verticillium lecanii* 795
300 *Metarhizium anisopliae* 794

Lacey, Lawrence A.

008A Sterile mycelium 3703
015A Sterile mycelium 3705
019A Sterile mycelium 3712
021A *Fusarium* sp. 3707
022A *Fusarium* sp. 3704
035A *Trichothecium roseum* 3708
036A *Verticillium lecanii* 3709
037A Sterile mycelium 3710
041A Sterile mycelium 3711
041A Sterile mycelium 3711
052A *Cladosporium* sp. 3706
059 *Verticillium lecanii* 3701
060 Sterile mycelium 3702
Ma16 *Aspergillus* sp. 3698
Ma17 *Paecilomyces fumosoroseus* 3699
Ma18 *Paecilomyces fumosoroseus* 3700

Landis, Doug

1A *Zoophthora radicans* 2977
1B *Zoophthora radicans* 2978
1C *Zoophthora radicans* 2979
2A *Zoophthora radicans* 2980

Lenné, Jillian M.

C7 *Metarhizium anisopliae* 587
E1 *Metarhizium anisopliae* 588
P1 *Metarhizium anisopliae* 589

Leonard, David E.

BBIV-20 *Zoophthora radicans* 21

Loch, Luiz

CB-75 *Paecilomyces* sp. 3101

Lord, Jeffrey C.

Bartow A *Leptolegnia chapmanii* 2680
Bartow A *Leptolegnia chapmanii* 2562
Bartow C Unidentified 2563

Maddox, Joseph V.

CHAMP87, BPLH-2 *Zoophthora radicans* 2551
EL87, PLH *Zoophthora radicans* 2550
HELMAV87, BULT *Zoophthora radicans* 2549
UNION87, BLH-1 *Zoophthora radicans* 2552

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F1 *Beauveria brongniartii* 3054
F11 *Metarhizium anisopliae* 3056
F12 *Metarhizium anisopliae* 3057
F13 *Beauveria bassiana* 3063
F25 *Metarhizium anisopliae* 3064
F28 *Beauveria bassiana* 3065
F29 *Beauveria bassiana* 3066
F33 *Beauveria bassiana* 3070
F6 *Beauveria bassiana* 3055

Majchrowicz, Irena

1 *Paecilomyces farinosus* 20
10 *Pandora neoaphidis* 3459
102 *Pandora neoaphidis* 636
103 *Pandora neoaphidis* 637
104 *Pandora neoaphidis* 638
105 *Pandora neoaphidis* 639
106 *Conidiobolus thrombooides* 630
107 *Conidiobolus thrombooides* 631
108 *Conidiobolus thrombooides* 635
109 *Conidiobolus thrombooides* 633
110 *Conidiobolus thrombooides* 632
111 *Conidiobolus thrombooides* 634
14 10.6 *Conidiobolus thrombooides* 85
14 10.6 *Conidiobolus thrombooides* 84
164 *Pandora neoaphidis* 1600
17 16.6 *Conidiobolus thrombooides* 87
17 16.6 *Conidiobolus thrombooides* 86
170 *Pandora neoaphidis* 1601
172 *Pandora neoaphidis* 1602
178 *Pandora neoaphidis* 1603
18 *Conidiobolus* sp. 3383
2 Unidentified 3239
201 *Pandora neoaphidis* 1604
211 *Pandora neoaphidis* 1605
216 *Pandora neoaphidis* 1606
224 *Pandora neoaphidis* 1607
23 *Beauveria bassiana* 3386
230 *Pandora neoaphidis* 1609
236 *Pandora neoaphidis* 1610
246 *Pandora neoaphidis* 1611
25-a *Beauveria bassiana* 3385
25-b *Conidiobolus* sp. 3384
251 *Pandora neoaphidis* 1612
257 *Pandora neoaphidis* 1613
260 4.08 *Pandora neoaphidis* 1618
263 *Pandora neoaphidis* 1615
269 *Pandora neoaphidis* 1616
275 *Pandora neoaphidis* 1617
28 *Pandora neoaphidis* 3234
32 *Pandora neoaphidis* 3237
34 *Pandora neoaphidis* 1596
37 *Pandora neoaphidis* 3238
37 *Pandora neoaphidis* 1597
3a *Metarhizium anisopliae* 3388
40 *Beauveria bassiana* 3387
50 *Pandora neoaphidis* 1598
56 *Beauveria bassiana* 1509
58 *Pandora neoaphidis* 3240
58 *Beauveria bassiana* 1510
61 *Paecilomyces farinosus* 1507
70 *Verticillium lecanii* 1505
71 *Pandora neoaphidis* 3410
71 *Paecilomyces fumosoroseus* 1506
75 *Beauveria bassiana* 1511
76 *Paecilomyces farinosus* 1508
8 *Pandora neoaphidis* 3411
80 *Pandora neoaphidis* 608
81 *Pandora neoaphidis* 609
82 *Pandora neoaphidis* 610
83 *Pandora neoaphidis* 3241
87 *Pandora neoaphidis* 611
88 *Pandora neoaphidis* 612
90 *Pandora neoaphidis* 613
91 *Pandora neoaphidis* 614
T-11-4 *Metarhizium anisopliae* 3389

Martinell, Brian J.

001(FSA) *Entomophaga macleodii* 619
002 *Entomophaga macleodii* 629
003(Rodeo) *Entomophaga macleodii* 618
004A(M. cun femur) *Entomophaga calopteni* 626
004B(M. cun haem) *Entomophaga calopteni* 623
006(Judd B proto) *Entomophaga macleodii* 620
008 *Entomophaga macleodii* 628
010(AlpineA) *Entomophaga macleodii* 621
011(JuddA) *Entomophaga macleodii* 624
014B *Entomophaga calopteni* 625
1 *Entomophaga macleodii* 767
10 *Entomophaga macleodii* 773
11 *Entomophaga macleodii* 775
12 *Entomophaga macleodii* 772
13 *Entomophaga macleodii* 769
20 *Entomophaga macleodii* 770
21 *Entomophaga macleodii* 771
22 *Entomophaga macleodii* 779
23 *Entomophaga macleodii* 778
25 *Entomophaga macleodii* 774
28 *Entomophaga macleodii* 777
3 *Entomophaga macleodii* 768
36 *Entomophaga calopteni* 766
41 *Entomophaga macleodii* 765
8 *Entomophaga macleodii* 776

Martins, Antonio S.

A-1 *Metarhizium anisopliae* var. *anisopliae* 3329

McCoy, Clayton W.

Fla. 68 *Hirsutella thompsonii* 137

McGuire, Michael R.

85-1(1pass) *Zoophthora radicans* 1938
A *Zoophthora radicans* 1018
B *Zoophthora radicans* 1019
C *Zoophthora radicans* 1261
D *Zoophthora radicans* 1020
E *Zoophthora radicans* 1262
F *Zoophthora radicans* 1021

McKown, P.D.

C-7 *Beauveria bassiana* 3534

Mechaber, Wendy

weevil#1318 *Fusarium* sp. 3030
weevil#1334 *Fusarium* sp. 3031
weevil#1354 *Fusarium* sp. 3032
weevil#2209 *Verticillium ?cephalosporum* 3035
weevil#2272 *Penicillium* sp. 3036
weevil#2354 *Beauveria bassiana* 3037

Mitsuhashi, Jun

Emb-1 *Entomophaga aulicae* 1751

Alternate Collections

Moxon, John E.
Poprawski, Tadeusz J.

Moxon, John E.

- 1 *Fusarium* sp. 2302
- 12 *Fusarium solani* 2311
- 15 *Fusarium solani* 2312
- 16 *Fusarium solani* 2313
- 17 *Fusarium solani* 2314
- 2 *Fusarium* sp. 2303
- 3 *Fusarium lateritium* 2304
- CCR14-4 *Fusarium semitectum* 2299
- CCR15-6 *Fusarium semitectum* 2300
- CCR16-6 *Fusarium subglutinans* 2301

MU

- 248 *Engyodontium aranearum* 2929
- 302 *Engyodontium aranearum* 2935

Muthappa, B.N.

- PNG 12710 *Paecilomyces farinosus* 2155
- PNG 12711 *Metarhizium anisopliae* var. *anisopliae* 2156
- PNG 12713 *Aspergillus flavus* 2157
- PNG 12714 *Aspergillus flavus* 2158
- PNG 12715 *Aspergillus flavus* 2159
- PNG 12717 *Aphanocladium album* 2161
- PNG 12719 *Verticillium indicum* 2170
- PNG 12720 *Paecilomyces viridis* 2160
- PNG 12721 *Metarhizium anisopliae* var. *anisopliae* 2162
- PNG 12722 *Metarhizium anisopliae* var. *anisopliae* 2163
- PNG 12723 *Beauveria* sp. 2164
- PNG 12724 *Metarhizium anisopliae* var. *anisopliae* 2165
- PNG 12725 *Scopulariopsis* sp. 2169
- PNG 12726 *Metarhizium anisopliae* var. *anisopliae* 2166
- PNG 12727 *Metarhizium anisopliae* var. *anisopliae* 2167

Nadeau, Martin

- 213 Unidentified 3227
- 222 Unidentified 3229
- 228 Unidentified 3247
- 231 Unidentified 3245
- 240 Unidentified 3246
- 241 Unidentified 3244
- 327 Unidentified 3232
- 329 Unidentified 3235
- 336 Unidentified 3228
- 362 Unidentified 3231
- 371 Unidentified 3230
- 373 Unidentified 3233
- 386 Unidentified 3243
- 421 Unidentified 3242
- 454 Unidentified 3236

Narayanan, K.

- 15 *Nomuraea* sp. 2413
- 16 *Verticillium* sp. 2414
- 6 *Fusarium* sp. 2232
- 7 *Metarhizium anisopliae* var. *anisopliae* 2231
- 8 *Paecilomyces marquandii* 2233
- 9 *Beauveria* sp. 2412

Narayanasamy, P.

- 30 Unidentified 3725
- 31 Unidentified 3727
- 32 Unidentified 3729
- 33 Unidentified 3726
- 34 Unidentified 3728

Nasca, A.J.

- Bb-T11 *Beauveria bassiana* 2457
- Ht-R *Hirsutella thompsonii* 2459
- Ht-T1 *Hirsutella thompsonii* 2464
- Nr-IY3 *Nomuraea rileyi* 2465
- Nr-T2 *Nomuraea rileyi* 2466
- VL-T9 *Verticillium lecanii* 2460

Nash, T.

- MIT1 *Beauveria bassiana* 338

Naves, Marcio A.

- 460(88) *Metarhizium anisopliae* 1891
- CG-6 *Metarhizium anisopliae* 1901

NCTC

- 2227 *Beauveria bassiana* 2454

NRRL

- 1232 *Basidiobolus haptospora* 261
- 1944 *Metarhizium anisopliae* 2107
- 2780 *Conidiobolus thrombooides* 15
- 2780 *Conidiobolus thrombooides* 115
- 2780 *Conidiobolus thrombooides* 208
- 3682 *Conidiobolus bangalorensis* 449
- A-27471 *Penicillium thomii* 2056
- A-27472 *Verticillium cocomporum* 2064
- A-27473 *Paecilomyces farinosus* 2057
- Y-12965 *Candida* sp. 1857
- Y-12966 *Candida* sp. 1877

Olive, Lindsey S.

- single spore isolate #1 *Culicinomyces clavisporus* 582
- single spore isolate #2 *Culicinomyces clavisporus* 583
- single spore isolate #3 *Culicinomyces clavisporus* 584
- single spore isolate #4 *Culicinomyces clavisporus* 585

Osborne, Lance S.

- UK-1 *Paecilomyces fumosoroseus* 2247
- UK-3(1) *Beauveria bassiana* 2236
- UK-3(2) *Verticillium insectorum* 2235
- UK-3(3) *Verticillium psalliotiae* 2234

Ostrovská, Katherine

- 12 *Fusarium* sp. 3382
- 20 Unidentified 3413
- 21 *Conidiobolus coronatus* 3414
- 22 *Conidiobolus coronatus* 3415
- 25 *Verticillium psalliotiae* 3416
- 26 Unidentified 3417
- 27 *Verticillium lecanii* 3418
- 29 Unidentified 3419
- 3 Unidentified 3378
- 31 Unidentified 3420
- 33 Unidentified 3421
- 34 Unidentified 3422
- 35 Unidentified 3423
- 36 Unidentified 3424

37 Unidentified 3425

- 4 *Conidiobolus coronatus* 3379
- 40 Unidentified 3426
- 42 Unidentified 3427
- 47 Unidentified 3428
- 51 *Paecilomyces fumosoroseus* 3429
- 52 *Aspergillus flavus* 3430
- 53 Unidentified 3123
- 54 Unidentified 3124
- 6 Unidentified 3380
- 9 Unidentified 3381

Pasteur Institute

- CIP-849 *Paecilomyces viridis* 2456

Perry, David

- 1602 *Tolyphocladium niveum* 3321

PFRC-FIDS

- 38-131 *Paecilomyces farinosus* 1851

Piazza, Lucy Corsetti

- A86 *Nomuraea rileyi* 2203

Pitt, J.I.

- FRR 1665 *Nomuraea anemonoides* 2467

Poprawski, Tadeusz J.

- 001 *Beauveria* sp. 1195
- 001A *Trichothecium roseum* 1226
- 002 *Beauveria* sp. 1196
- 004 *Beauveria* sp. 1197
- 005 *Beauveria* sp. 1198
- 0102A *Beauveria bassiana* 1512
- 0102B *Beauveria bassiana* 1513
- 0103A *Beauveria bassiana* 1514
- 0103B *Paecilomyces fumosoroseus* 1626
- 0104 *Beauveria bassiana* 1627
- 0105 *Beauveria bassiana* 1628
- 0106 *Beauveria bassiana* 1629
- 0107 *Beauveria bassiana* 1515
- 0108 *Beauveria bassiana* 1516
- 0109 *Beauveria bassiana* 1517
- 0111 *Beauveria bassiana* 1518
- 0112 *Beauveria bassiana* 1519
- 0117A *Beauveria bassiana* 1520
- 0117B *Beauveria bassiana* 1521
- 0118A *Beauveria bassiana* 1630
- 0120 Unidentified 1634
- 0121 *Fusarium* sp. 1522
- 0122 *Beauveria bassiana* 1523
- 0123 *Beauveria bassiana* 1524
- 0124A *Beauveria bassiana* 1525
- 0124B *Beauveria bassiana* 1526
- 0125 *Beauveria bassiana* 1527
- 0126 *Beauveria bassiana* 1528
- 0127A *Beauveria bassiana* 1529
- 0127A(bis) *Paecilomyces fumosoroseus* 1530
- 0127B *Beauveria bassiana* 1531
- 0127B(bis) *Paecilomyces fumosoroseus* 1532
- 0128A *Beauveria bassiana* 1533
- 0128B *Beauveria bassiana* 1534
- 013 Beauveria sp. 1199
- 0130A *Beauveria bassiana* 1535
- 0130B *Beauveria bassiana* 1536
- 0131A *Beauveria bassiana* 1537

0131B <i>Beauveria bassiana</i> 1538	0181 <i>Beauveria bassiana</i> 1978	086 <i>Beauveria bassiana</i> 1398
0132 <i>Beauveria bassiana</i> 1539	0182 <i>Beauveria bassiana</i> 1979	087 <i>Beauveria bassiana</i> 1399
0133A <i>Beauveria bassiana</i> 1540	0183 <i>Beauveria bassiana</i> 1980	088 <i>Beauveria bassiana</i> 1389
0133B <i>Beauveria bassiana</i> 1635	0184 <i>Pandora neoaphidis</i> 1981	089 <i>Verticillium</i> sp. 1401
0134 <i>Beauveria bassiana</i> 1636	0185 <i>Beauveria bassiana</i> 1982	090 <i>Verticillium</i> sp. 1402
0135A <i>Beauveria bassiana</i> 1637	0187 <i>Beauveria bassiana</i> 1984	091 <i>Verticillium</i> sp. 1403
0135B <i>Beauveria bassiana</i> 1638	0188 <i>Pandora neoaphidis</i> 1985	092A <i>Beauveria bassiana</i> 1404
0136 <i>Trichothecium roseum</i> 1639	0189 <i>Pandora neoaphidis</i> 1986	092B <i>Beauveria bassiana</i> 1405
0137 <i>Beauveria bassiana</i> 1640	0190 <i>Pandora neoaphidis</i> 1987	093A <i>Beauveria bassiana</i> 1406
0138 <i>Fusarium</i> sp. 1641	0191 <i>Pandora neoaphidis</i> 2085	093B <i>Beauveria bassiana</i> 1407
0139 <i>Trichothecium roseum</i> 1642	0193 <i>Pandora neoaphidis</i> 2086	094A <i>Beauveria bassiana</i> 1408
014 <i>Beauveria</i> sp. 1200	0195 <i>Entomophthora muscae</i> 2087	094B <i>Beauveria bassiana</i> 1409
0140 <i>Beauveria bassiana</i> 1643	0196 <i>Entomophthora muscae</i> 2088	095 <i>Beauveria bassiana</i> 1410
0141A <i>Paecilomyces fumosoroseus</i> 1644	0197 <i>Entomophthora muscae</i> 2089	096A <i>Beauveria bassiana</i> 1411
0141B <i>Paecilomyces fumosoroseus</i> 1645	023 <i>Beauveria</i> sp. 1201	096B <i>Beauveria bassiana</i> 1412
0142 <i>Paecilomyces fumosoroseus</i> 1646	024 <i>Beauveria</i> sp. 1202	097 <i>Beauveria bassiana</i> 1413
0143 <i>Beauveria bassiana</i> 1647	025 <i>Beauveria</i> sp. 1203	099 <i>Beauveria bassiana</i> 1414
0144 <i>Beauveria bassiana</i> 1648	026 <i>Beauveria</i> sp. 1204	10 <i>Paecilomyces farinosus</i> 3580
0145 <i>Beauveria bassiana</i> 1649	027 <i>Beauveria</i> sp. 1205	13 <i>Fusarium</i> sp. 3678
0146 <i>Beauveria bassiana</i> 1650	028 <i>Beauveria</i> sp. 1206	15 <i>Fusarium</i> sp. 3679
0147 <i>Beauveria bassiana</i> 1788	030 <i>Beauveria</i> sp. 1207	19 <i>Fusarium</i> sp. 3672
0148A <i>Beauveria bassiana</i> 1789	034 <i>Beauveria</i> sp. 1208	2 <i>Fusarium</i> sp. 3676
0148B <i>Beauveria bassiana</i> 1790	035 <i>Beauveria</i> sp. 1209	2 Paecilomyces farinosus 3572
0149 <i>Beauveria bassiana</i> 1791	037 <i>Beauveria</i> sp. 1210	21 Paecilomyces farinosus 3590
0150A <i>Beauveria bassiana</i> 1792	038 <i>Beauveria</i> sp. 1211	22 Paecilomyces farinosus 3591
0150B <i>Beauveria bassiana</i> 1793	042 <i>Trichothecium roseum</i> 1212	23 Paecilomyces farinosus 3592
0150C <i>Beauveria bassiana</i> 1794	043 <i>Fusarium</i> sp. 1307	24 Paecilomyces farinosus 3593
0151 <i>Beauveria bassiana</i> 1795	044 <i>Trichothecium roseum</i> 1308	25 Paecilomyces farinosus 3594
0152A <i>Beauveria bassiana</i> 1796	046 <i>Beauveria</i> sp. 1213	2A <i>Fusarium</i> sp. 3677
0152B <i>Beauveria bassiana</i> 1797	047 <i>Beauveria</i> sp. 1214	3 Paecilomyces farinosus 3573
0152C <i>Beauveria bassiana</i> 1798	049 <i>Beauveria</i> sp. 1215	32 <i>Fusarium</i> sp. 3673
0152D <i>Beauveria bassiana</i> 1799	050 <i>Beauveria</i> sp. 1216	38 <i>Fusarium</i> sp. 3668
0154 <i>Beauveria bassiana</i> 1800	050A <i>Trichothecium</i> sp. 1217	4 Paecilomyces farinosus 3574
0155 <i>Beauveria bassiana</i> 1801	051 <i>Beauveria</i> sp. 1218	40 Paecilomyces farinosus 3658
0156 <i>Beauveria bassiana</i> 1802	052 <i>Beauveria</i> sp. 1219	41 Paecilomyces farinosus 3659
0157 <i>Beauveria bassiana</i> 1803	057 <i>Beauveria</i> sp. 1220	43 Paecilomyces farinosus 3660
0158A <i>Beauveria bassiana</i> 1804	059 <i>Beauveria</i> sp. 1221	44 Paecilomyces farinosus 3661
0158B <i>Beauveria bassiana</i> 1805	060 <i>Beauveria</i> sp. 1222	45 Paecilomyces farinosus 3662
0158C <i>Beauveria bassiana</i> 1806	060A <i>Trichothecium</i> sp. 1223	48 Paecilomyces farinosus 3663
0159A <i>Beauveria bassiana</i> 1807	061 <i>Beauveria</i> sp. 1224	5 <i>Fusarium</i> sp. 3670
0159B <i>Beauveria bassiana</i> 1808	070 <i>Beauveria bassiana</i> 1164	5 Paecilomyces farinosus 3575
0160 <i>Beauveria bassiana</i> 1809	070A <i>Beauveria bassiana</i> 1314	50 <i>Fusarium</i> sp. 3674
0161 <i>Beauveria bassiana</i> 1810	070B <i>Beauveria bassiana</i> 1315	5A <i>Fusarium</i> sp. 3675
0162 <i>Beauveria bassiana</i> 1822	070C <i>Beauveria bassiana</i> 1316	6 Paecilomyces farinosus 3576
0163 <i>Beauveria bassiana</i> 1812	071 <i>Beauveria bassiana</i> 1394	60 <i>Fusarium</i> sp. 3669
0164A <i>Beauveria bassiana</i> 1813	071A <i>Beauveria bassiana</i> 1163	645 <i>Beauveria bassiana</i> 1191
0164B <i>Beauveria bassiana</i> 1814	072 <i>Beauveria bassiana</i> 1154	646 <i>Beauveria bassiana</i> 1192
0165 <i>Beauveria bassiana</i> 1815	073 <i>Beauveria bassiana</i> 1155	647 <i>Beauveria bassiana</i> 1193
0166A <i>Beauveria bassiana</i> 1816	074 <i>Beauveria bassiana</i> 1153	648 <i>Beauveria bassiana</i> 1194
0166B <i>Beauveria bassiana</i> 1817	074A <i>Beauveria bassiana</i> 1317	7 <i>Fusarium</i> sp. 3671
0166C <i>Beauveria bassiana</i> 1818	074B <i>Beauveria bassiana</i> 1318	7 Paecilomyces farinosus 3577
0166D <i>Beauveria bassiana</i> 1819	075 <i>Beauveria bassiana</i> 1395	8 Paecilomyces farinosus 3578
0167A <i>Beauveria bassiana</i> 1820	076 <i>Beauveria bassiana</i> 1319	83-05 <i>Beauveria bassiana</i> 1151
0167B <i>Beauveria bassiana</i> 1821	077A <i>Beauveria bassiana</i> 1396	83-06 <i>Fusarium solani</i> 1148
0167C <i>Beauveria bassiana</i> 1811	077B <i>Beauveria bassiana</i> 1397	83-11 <i>Fusarium oxysporum</i> 1371
0168 <i>Beauveria bassiana</i> 1864	078 <i>Beauveria bassiana</i> 1320	83-15 <i>Aspergillus</i> sp. 1152
0169 <i>Beauveria bassiana</i> 1865	079B <i>Beauveria bassiana</i> 1321	83-37 <i>Beauveria bassiana</i> 1150
0170 <i>Beauveria bassiana</i> 1866	079C <i>Beauveria bassiana</i> 1322	83-48 <i>Beauveria bassiana</i> 1073
0171 <i>Paecilomyces fumosoroseus</i> 1867	079D <i>Beauveria bassiana</i> 1323	83-49 <i>Beauveria bassiana</i> 1074
0172 <i>Paecilomyces fumosoroseus</i> 1868	079E <i>Beauveria bassiana</i> 1324	83-54 <i>Beauveria bassiana</i> 1075
0175 <i>Beauveria bassiana</i> 1988	079F <i>Beauveria bassiana</i> 1325	83-611 <i>Beauveria bassiana</i> 1306
0176 <i>Beauveria bassiana</i> 1973	080 <i>Beauveria bassiana</i> 1326	83-614 <i>Beauveria bassiana</i> 1160
0177 <i>Beauveria bassiana</i> 1974	082 <i>Beauveria</i> sp. 1327	83-615 <i>Beauveria bassiana</i> 1159
0178 <i>Beauveria bassiana</i> 1975	083 <i>Acremonium furcatum</i> 1372	83-616 <i>Beauveria bassiana</i> 1182
0179 <i>Beauveria bassiana</i> 1976	084 <i>Verticillium lecanii</i> 1328	83-619 <i>Beauveria bassiana</i> 1157
0180 <i>Beauveria bassiana</i> 1977	085 <i>Aphanocladium album</i> 1329	83-621 <i>Beauveria bassiana</i> 1165

83-623 *Beauveria bassiana* 1162
 83-626 *Beauveria bassiana* 1161
 83-634 *Beauveria bassiana* 1158
 83-639 *Beauveria bassiana* 1156
 83-701 *Beauveria bassiana* 1167
 83-702 *Beauveria bassiana* 1168
 83-703 *Beauveria bassiana* 1169
 83-704 *Beauveria bassiana* 1170
 83-77 *Beauveria bassiana* 1166
 83-79 *Beauveria bassiana* 1149
 8617 *Entomophthora muscae* 2263
 8619 *Entomophthora muscae* 2264
 8622 *Entomophthora muscae* 2265
 8624 *Entomophthora muscae* 2266
 8627 *Fusarium* sp. 2252
 8628 *Scopulariopsis* sp. 2255
 8629 *Beauveria bassiana* 2253
 8630 *Beauveria bassiana* 2254
 8631 *Zoophthora radicans* 2256
 8633 *Zoophthora radicans* 2257
 8634 *Zoophthora radicans* 2258
 8635 *Zoophthora radicans* 2259
 8636 *Zoophthora radicans* 2260
 8637 *Zoophthora radicans* 2261
 8639 *Zoophthora radicans* 2262
 8640 *Entomophthora muscae* 2317
 8642 *Beauveria bassiana* 2318
 8643 *Beauveria bassiana* 2319
 8644 *Beauveria bassiana* 2320
 8645 *Beauveria bassiana* 2321
 8646 *Beauveria bassiana* 2322
 8647 *Verticillium* sp. 2323
 8648 *Verticillium* sp. 2324
 8649 *Verticillium* sp. 2325
 8650 *Verticillium* sp. 2326
 8651 *Scopulariopsis* sp. 2327
 8652 *Scopulariopsis* sp. 2328
 8654 *Verticillium* sp. 2329
 8701 *Beauveria bassiana* 2457
 8702 *Beauveria bassiana* 2458
 8703 *Hirsutella thompsonii* 2459
 8704 *Hirsutella thompsonii* 2464
 8705 *Verticillium lecanii* 2460
 8706 *Beauveria bassiana* 2461
 8707 *Beauveria bassiana* 2462
 8708 *Nomuraea rileyi* 2465
 8709 *Nomuraea rileyi* 2466
 8710 *Beauveria bassiana* 2463
 8809A *Beauveria bassiana* 3153
 8809B *Beauveria bassiana* 3154
 8809C *Beauveria bassiana* 3155
 8809D *Beauveria bassiana* 3156
 8809E *Beauveria bassiana* 3157
 8809G *Beauveria bassiana* 3158
 88100 *Zoophthora radicans* 2704
 88102 *Zoophthora radicans* 2697
 88103 *Zoophthora radicans* 2705
 88107 *Zoophthora radicans* 2707
 88108 *Zoophthora radicans* 2711
 88111 *Zoophthora radicans* 2698
 88113 *Zoophthora radicans* 2699
 88116 *Zoophthora radicans* 2712
 88121 *Zoophthora radicans* 2710
 88129 *Zoophthora radicans* 2714
 8812B *Zoophthora radicans* 3159
 8812C *Zoophthora radicans* 3160

8812D *Zoophthora radicans* 3161
 8812D *Zoophthora radicans* 2696
 8817A *Zoophthora radicans* 3162
 8817B *Zoophthora radicans* 3163
 8817B *Zoophthora radicans* 2708
 8818A *Zoophthora radicans* 3114
 8818A *Zoophthora radicans* 2709
 8819A *Zoophthora radicans* 3115
 8819B *Zoophthora radicans* 3151
 8820A *Zoophthora radicans* 3116
 8820A *Zoophthora radicans* 2703
 8823A *Zoophthora radicans* 3164
 8823A *Zoophthora radicans* 2713
 8824A *Zoophthora radicans* 3150
 8824B *Zoophthora radicans* 3117
 8824B *Zoophthora radicans* 2702
 8825A *Zoophthora radicans* 3149
 8825A *Zoophthora radicans* 2706
 8825B *Zoophthora radicans* 3118
 8826 *Zoophthora radicans* 3119
 8826 *Zoophthora radicans* 2701
 8830A *Zoophthora radicans* 3165
 8835A *Beauveria bassiana* 3166
 8835B *Beauveria bassiana* 3167
 8835C *Beauveria bassiana* 3168
 8835D *Beauveria bassiana* 3169
 8842A *Zoophthora radicans* 3170
 8843A *Zoophthora radicans* 3171
 8843A *Zoophthora radicans* 2700
 8843B *Zoophthora radicans* 3172
 8851 *Beauveria bassiana* 3120
 8852 *Beauveria bassiana* 3121
 8854 (first form) Unidentified 3122
 8854 (second form) *Beauveria bassiana* 3215
 9 *Paecilomyces farinosus* 3579
 9009 Unidentified 3125
 9014 *Pandora neoaphidis* 3126
 9015 *Pandora neoaphidis* 3174
 9016 *Pandora neoaphidis* 3175
 A1 *Beauveria bassiana* 1189
 A10 *Beauveria bassiana* 1311
 A11 *Beauveria bassiana* 1312
 A12 *Beauveria bassiana* 1313
 A2 *Beauveria bassiana* 1171
 A3 *Beauveria bassiana* 1190
 A4 *Beauveria bassiana* 1172
 A5 *Beauveria bassiana* 1173
 A6 *Beauveria bassiana* 1174
 A7 *Beauveria bassiana* 1175
 A8 *Beauveria bassiana* 1309
 A9 *Fusarium* sp. 1310
 E1 *Beauveria bassiana* 1188
 J1 *Beauveria bassiana* 1176
 J2 *Beauveria bassiana* 1177
 J3 *Beauveria bassiana* 1178
 J4 *Beauveria bassiana* 1179
 J5 *Beauveria bassiana* 1180
 J6 *Beauveria bassiana* 1181
 J7 *Beauveria bassiana* 1183

Postie, Lori

Reisolate 1 *Entomophaga macleodii* 3077
 Reisolate 2 *Entomophaga macleodii* 3078
 Reisolate 3 *Entomophaga macleodii* 3079

Prior, Christopher

Kenya 1 *Beauveria bassiana* 2685
 Kenya 2 *Beauveria bassiana* 2686
 Kenya 3 *Beauveria bassiana* 2687
 Togo 1 *Beauveria bassiana* 2688
 Togo 2 *Beauveria bassiana* 2689
 Togo 3 *Beauveria bassiana* 2690
 Togo 4 *Beauveria bassiana* 2691
 Togo 5 *Beauveria bassiana* 2692

PSU

L-237 *Fusarium lateritium* 2304
 M-3856 *Fusarium subglutinans* 2301
 M-3959 *Fusarium nygamai* 2316
 R-8540 *Fusarium semitectum* 2299
 R-8541 *Fusarium semitectum* 2300
 S-1145 *Fusarium solani* 2311
 S-1146 *Fusarium solani* 2312
 S-1147 *Fusarium solani* 2313
 S-1148 *Fusarium solani* 2314

Puerto Rico

04-91 *Cladosporium cladosporioides* 3375

QEC

408.0 *Metarhizium anisopliae* 872
 408.1 *Metarhizium anisopliae* 909
 409.0 *Metarhizium anisopliae* var. *anisopliae* 925
 410.0 *Metarhizium anisopliae* 455
 411.0 *Metarhizium anisopliae* 456
 412.0 *Metarhizium anisopliae* 457
 413.0 *Metarhizium anisopliae* 485
 414.0 *Metarhizium anisopliae* 486
 415.0 *Metarhizium anisopliae* 487
 416.0 *Metarhizium anisopliae* 488
 417.0 *Metarhizium anisopliae* 489
 418.0 *Metarhizium anisopliae* 549
 419.0 *Metarhizium anisopliae* 550
 420.0 *Metarhizium anisopliae* 551
 421.0 *Metarhizium anisopliae* 907
 422.1 *Metarhizium anisopliae* 921
 423.0 *Metarhizium anisopliae* 910
 424.0 *Metarhizium anisopliae* 911
 425.0 *Metarhizium anisopliae* 912
 426.0 *Metarhizium anisopliae* 913
 427.0 *Metarhizium anisopliae* 576
 429.0 *Metarhizium anisopliae* var. *majus* 473
 431.0 *Metarhizium anisopliae* 588
 432.0 *Metarhizium anisopliae* 589
 433.0 *Metarhizium anisopliae* 683
 434.0 *Metarhizium anisopliae* 1284
 435.0 *Metarhizium anisopliae* 1285
 436.0 *Metarhizium anisopliae* 1286
 437.0 *Metarhizium anisopliae* 1290
 438.0 *Metarhizium anisopliae* 1300
 439.0 *Metarhizium anisopliae* 1304

QM

191 *Metarhizium anisopliae* 2107

Quintela, Ileani

- VL1 *Beauveria* sp. 3510
- VL3 *Paecilomyces lilacinus* 3511
- VL4 *Paecilomyces lilacinus* 3512
- VL5 *Beauveria bassiana* 3513
- VL6 *Beauveria bassiana* 3514
- VL7 *Beauveria bassiana* 3515

Rajak, R.C.

- 49 *Metarhizium anisopliae* var. *anisopliae* 3210
- ENT/10A *Fusarium* sp. 2595
- ENT/12 *Metarhizium* sp. 2596
- ENT/42 *Beauveria bassiana* 2597

Ramos, Mark E.

- Cape *Entomophaga praxibuli* 3356
- Mebi *Entomophaga praxibuli* 3358
- Mesa *Entomophaga praxibuli* 3357

Remaudière, Georges

- 625 *Zoophthora radicans* 126

Riba, Guy

- C-37 *Gibellula* sp. 1669
- NR-11 *Nomuraea rileyi* 1670
- NR-5 *Nomuraea rileyi* 1671

Riethmacher, Guenter W.

- A1 Unidentified 2752
- A3 *Aspergillus* sp. 2765
- B10C *Beauveria bassiana* 2725
- B10K Unidentified 2746
- B10M *Paecilomyces farinosus* 2724
- B11W *Paecilomyces fumosoroseus* 2733
- B12p *Paecilomyces fumosoroseus* 2804
- B13A *Beauveria bassiana* 2748
- B13B *Paecilomyces farinosus* 2726
- B13m *Metarhizium anisopliae* 2805
- B14m *Metarhizium anisopliae* 2806
- B15p *Paecilomyces farinosus* 2807
- B16m *Metarhizium anisopliae* 2808
- B17b *Metarhizium anisopliae* 2809
- B18b *Verticillium* sp. 2810
- B22 *Aspergillus* sp. 3176
- B23 *Paecilomyces fumosoroseus* 3177
- B31 Mixed culture 3178
- B32 *Paecilomyces fumosoroseus* 3179
- B34 *Metarhizium anisopliae* var. *anisopliae* 3180
- B37a *Beauveria bassiana* 3181
- B37b Mixed culture 3182
- B38 *Paecilomyces farinosus* 3183
- B39 *Paecilomyces farinosus* 3184
- B4 Mixed culture 2738
- B40 *Paecilomyces farinosus* 3185
- B41 *Paecilomyces farinosus* 3186
- B43a *Metarhizium anisopliae* var. *anisopliae* 3187
- B43b *Paecilomyces fumosoroseus* 3188
- B43c *Scopulariopsis* sp. 3189
- B44a *Metarhizium anisopliae* var. *anisopliae* 3190
- B44b *Paecilomyces farinosus* 3191
- B45a *Paecilomyces amoenoroseus* 3192
- B45b *Metarhizium anisopliae* var. *anisopliae* 3193

- B47a *Metarhizium anisopliae* var. *anisopliae* 3194
- B47b *Aspergillus* sp. 3195
- B48 *Metarhizium anisopliae* var. *anisopliae* 3196
- B4P Unidentified 2747
- B4T8 *Metarhizium anisopliae* var. *anisopliae* 2742
- B5Bs *Fusarium* sp. 2743
- B5R9 *Paecilomyces fumosoroseus* 2744
- B5T10 *Paecilomyces fumosoroseus* 2745
- BB *Beauveria bassiana* 2739
- Bet1 *Beauveria bassiana* 3197
- Bet2 *Beauveria bassiana* 3198
- Bet3 *Beauveria bassiana* 3199
- BP *Beauveria bassiana* 2737
- C1 *Conidiobolus coronatus* 2730
- C2 *Conidiobolus firmipileus* 2731
- C3 *Conidiobolus* sp. 2771
- C4 *Conidiobolus* sp. 2772
- C4.1a *Conidiobolus* sp. 3208
- C5 *Conidiobolus* sp. 2815
- C6 *Conidiobolus* sp. 2816
- E1 *Aspergillus* sp. 2817
- E2 *Zoophthora radicans* 2893
- E3 *Zoophthora radicans* 3204
- E4 *Aspergillus flavus* 2818
- E5 *Zoophthora radicans* 3205
- E6 *Zoophthora radicans* 3206
- E7 *Aspergillus* sp. 2820
- E8 Unidentified 2821
- EB1 *Beniowskia* sp. 2751
- EB10 *Scopulariopsis* sp. 3203
- EB2 *Zoophthora radicans* 2732
- EB3 *Pandora blunckii* 3200
- EB4 *Pandora blunckii* 2824
- EB4 *Fusarium* sp. 2776
- EB6 *Pandora blunckii* 3201
- EB7 *Pandora blunckii* 3202
- L1 *Beauveria bassiana* 2727
- L2 *Beauveria bassiana* 2728
- L3 *Beauveria bassiana* 2729
- L4 *Paecilomyces fumosoroseus* 2749
- M1 *Paecilomyces farinosus* 2734
- Ma1 *Metarhizium anisopliae* 2735
- Ma2 *Fusarium* sp. 2736
- T11 *Metarhizium anisopliae* 2741
- T6.1 Mixed culture 2740

Roberts, Donald W.

- (i)I *Metarhizium flavoviride* var. *minus* 1288
- 020184-2A *Entomophaga* sp. 1126
- 040485-6 *Hirsutella citriformis* 1913
- 090485-3 *Nomuraea rileyi* 1879
- 100881-2 *Trichothecium* sp. 653
- 100981-1 *Pandora delphacis* 716
- 100981-3 *Pandora delphacis* 673
- 100981-4 *Pandora delphacis* 674
- 101081-1 *Pandora delphacis* 686
- 101081-2-3 *Pandora delphacis* 682
- 101081-3 *Pandora delphacis* 668
- 101081-4 *Pandora delphacis* 657
- 101081-5-3 *Pandora delphacis* 672
- 101081-6 *Paecilomyces* sp. 680
- 101081-6-2 *Pandora delphacis* 660
- 101081-6-2 *Pandora delphacis* 659
- 101181-4 *Fusarium* sp. 687
- 101381-1 *Pandora delphacis* 670
- 101481-4-1 *Beauveria brongniartii* 678
- 101481-5 *Beauveria brongniartii* 656
- 101981-1 *Beauveria bassiana* 652
- 102081-1 *Beauveria bassiana* 679
- 102081-2 *Beauveria bassiana* 654
- 102181-1 *Beauveria bassiana* 714
- 102181-1 *Pandora delphacis* 666
- 102181-12 *Zoophthora radicans* 685
- 102181-2 *Pandora delphacis* 669
- 102181-4 *Pandora delphacis* 713
- 102181-5 *Pandora delphacis* 676
- 102181-6 *Pandora delphacis* 667
- 102181-9 *Pandora delphacis* 665
- 102381-2 *Conidiobolus lachnoides* 700
- 102381-6 *Conidiobolus coronatus* 655
- 102381-9 *Metarhizium anisopliae* 683
- 102981-2 *Hirsutella citriformis* 684
- 103a *Metarhizium anisopliae* 1903
- 110485-2 *Entomophaga* sp. 1881
- 1110 *Beauveria bassiana* 285
- 26102a *Conidiobolus* nr. *coronatus* 1742
- 26104 *Conidiobolus* nr. *coronatus* 1743
- 26105 *Pandora delphacis* 1731
- 26108 *Pandora delphacis* 1730
- 291001 *Metarhizium anisopliae* 1728
- 291013 *Metarhizium anisopliae* 1726
- 291014 *Metarhizium anisopliae* 1744
- 291015 *Metarhizium anisopliae* 1727
- 291016 *Metarhizium anisopliae* 1745
- 291017 *Metarhizium anisopliae* 1725
- 29103 *Metarhizium anisopliae* 1724
- 29103b *Metarhizium anisopliae* 1823
- 2910B *Metarhizium anisopliae* 1729
- 2A2-B(b) *Beauveria bassiana* 333
- 2A3-B(a) *Beauveria bassiana* 334
- 2B2-A *Beauveria bassiana* 335
- 3T *Beauveria bassiana* 291
- 5A *Metarhizium flavoviride* var. *minus* 1302
- 81280 *Metarhizium anisopliae* 543
- 81380-4 *Conidiobolus coronatus* 511
- 82180-13b *Paecilomyces farinosus* 531
- 82180-2a *Hirsutella citriformis* 532
- 82180-4a *Conidiobolus coronatus* 512
- 82180-4c *Conidiobolus coronatus* 524
- 82180-7b *Conidiobolus* sp. 522
- 82180-7c *Conidiobolus coronatus* 514
- 82380-19 *Conidiobolus* sp. 517
- 82380-20 *Conidiobolus coronatus* 520
- 82380-22 *Conidiobolus coronatus* 523
- 82880-1 *Tilletiopsis* sp. 573
- 82880-11 *Conidiobolus coronatus* 525
- 82880-2 *Tilletiopsis* sp. 572
- 82880-2 *Tilletiopsis* sp. 527
- 82980-1 *Conidiobolus coronatus* 528
- A *Conidiobolus coronatus* 418
- A1 *Metarhizium flavoviride* var. *minus* 1291
- A10 *Metarhizium flavoviride* var. *minus* 1303
- A8 *Metarhizium flavoviride* var. *minus* 1099

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A9 *Metarhizium flavoviride* var. *minus*
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 B *Conidiobolus coronatus* 419
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 Bbass-3 *Beauveria bassiana* 303
 Bbass-4 *Beauveria bassiana* 304
 Bbass-5 *Beauveria bassiana* 305
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minus 1287
 BPH-11 *Metarhizium anisopliae* 1290
 BPH-12 *Metarhizium anisopliae* 1284
 BPH-13 *Metarhizium anisopliae* 1285
 BPH-3[?] *Metarhizium flavoviride* var.
minus 1295
 BPH-3[?] *Metarhizium flavoviride* var.
minus 1294
 BPH-4 *Metarhizium anisopliae* 1286
 BPH-5 *Metarhizium flavoviride* var.
minus 1274
 BPH-6 *Metarhizium flavoviride* var.
minus 1296
 BPH-7 *Metarhizium flavoviride* var.
minus 1289
 BPH-8 *Metarhizium flavoviride* var.
minus 1275
 Bq *Metarhizium flavoviride* var. *minus*
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 BSS-1 *Beauveria bassiana* 286
 BSS-2 *Beauveria bassiana* 287
 BSS-3 *Beauveria bassiana* 288
 BSS-4 *Beauveria bassiana* 289
 BSS-5 *Beauveria bassiana* 290
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 E *Conidiobolus coronatus* 421
 F *Conidiobolus coronatus* 422
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 H.citrif *Hirsutella citriformis* 1837
 I *Metarhizium flavoviride* var. *minus*
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 I FAR *Beauveria bassiana* 308
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 IX *Metarhizium flavoviride* var. *minus*
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 Ma Teetor S2 SS#10 *Metarhizium aniso-*
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 Ma Teetor S2 SS#11 *Metarhizium aniso-*
pliae 897
 Ma Teetor S2 SS#12 *Metarhizium aniso-*
pliae 896
 Ma Teetor S2 SS#13 *Metarhizium aniso-*
pliae 895
 Ma Teetor S2 SS#14 *Metarhizium aniso-*
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pliae 870
 Ma Teetor S2 SS#16 *Metarhizium aniso-*
pliae 868
 Ma Teetor S2 SS#17 *Metarhizium aniso-*
pliae 869

Ma Teetor S2 SS#18 *Metarhizium aniso-*
pliae 867
 Ma Teetor S2 SS#19 *Metarhizium aniso-*
pliae 864
 Ma Teetor S2 SS#2 *Metarhizium aniso-*
pliae 874
 Ma Teetor S2 SS#20 *Metarhizium aniso-*
pliae 865
 Ma Teetor S2 SS#21 *Metarhizium aniso-*
pliae 871
 Ma Teetor S2 SS#22 *Metarhizium aniso-*
pliae 866
 Ma Teetor S2 SS#3 *Metarhizium aniso-*
pliae 893
 Ma Teetor S2 SS#4 *Metarhizium aniso-*
pliae 873
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1097
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1091
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1090
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1089
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1088
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1087
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1086
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1085
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1084
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1083
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1025
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1024
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1023
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 1022
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 968
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 967
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 966
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 965
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 960
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 922
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
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 Ma Teetor S2 SS#5 *Metarhizium aniso-*
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 Ma Teetor S2 SS#5 *Metarhizium aniso-*
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 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 911
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 910

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Rodriguez Sierra, Dora Alba

Ma Teetor S2 SS#5 *Metarhizium aniso-*
pliae 909
 Ma Teetor S2 SS#5 *Metarhizium aniso-*
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 Ma Teetor S2 SS#5 *Metarhizium aniso-*
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 Ma Teetor S2 SS#5 *Metarhizium aniso-*
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 Ma Teetor S2 SS#6 *Metarhizium aniso-*
pliae 892
 Ma Teetor S2 SS#7 *Metarhizium aniso-*
pliae 891
 Ma Teetor S2 SS#8 *Metarhizium aniso-*
pliae 890
 Ma Teetor S2 SS#9 *Metarhizium aniso-*
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 MaT3JB-A *Metarhizium anisopliae* 1878
 MaT3JB-B *Metarhizium anisopliae* 1298
 MaT3JB-C *Metarhizium anisopliae* 1280
 N-2 *Beauveria bassiana* 284
 Pol-32 *Metarhizium anisopliae* var. *ma-*
jus 1859
 Pol-42 *Metarhizium anisopliae* var. *ma-*
jus 1858
 R *Metarhizium flavoviride* var. *minus*
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 S *Metarhizium flavoviride* var. *minus*
 1271
 SG-(F) *Beauveria bassiana* 334
 SG-(G) *Beauveria bassiana* 335
 SG-(G) *Beauveria bassiana* 333
 SG-8 *Beauveria bassiana* 306
 SH-8 *Beauveria bassiana* 307
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 single spore isolate #9 *Metarhizium*
anisopliae 1298
 T2 *Metarhizium flavoviride* var. *minus*
 1273
 V-14 (F84 mutant) *Metarhizium aniso-*
pliae 1897
 VI *Metarhizium flavoviride* var. *minus*
 1301
 VII *Metarhizium flavoviride* var. *minus*
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 VIII *Metarhizium anisopliae* 1300
 VSS#1 *Metarhizium anisopliae* 906
 VSS#2 *Metarhizium anisopliae* 905
 VSS#3 *Metarhizium anisopliae* 904
 VSS#4 *Metarhizium anisopliae* 903
 VSS#5 *Metarhizium anisopliae* 902
 VSS#6 *Metarhizium anisopliae* 901

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 Champ90LH2To(B) *Zoophthora radicans*
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 Champ90LH2To(E) *Zoophthora radicans*
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Rodriguez Sierra, Dora Alba
 103 Bb *Beauveria bassiana* 2297
 106 Bb *Beauveria bassiana* 2248
 201 Bb *Beauveria bassiana* 2250
 203 Bb *Beauveria bassiana* 2249

Rombach, Michiel C.
 030786-2 *Hirsutella* sp. 2208
 041186-1 *Beauveria bassiana* 2360
 051185-4 *Metarhizium flavoviride* var.
minus 2037
 061185-1 *Metarhizium anisopliae* 2043
 070786-5 *Hirsutella* sp. 2209
 071185-2 *Hirsutella strigosa* 2044
 071185-3 *Fusarium semitecum* 2053
 090586-1 *Hirsutella repens* 2394
 090586-1 *Hirsutella repens* 2359
 090586-1 *Hirsutella repens* 2348
 090686-1 *Hirsutella strigosa* 2197
 10B *Hirsutella citriformis* 1436
 11(ascosp.) *Torrubiella raticaudata* 1915
 111286-2 *Nomuraea rileyi* 2345
 111286-4 *Hirsutella citriformis* 2346
 120186-2 *Metarhizium flavoviride* var.
minus 2339
 120286-1 *Paecilomyces reniformis* 2340
 120286-2 *Metarhizium anisopliae* 2341
 120286-3 *Metarhizium anisopliae* 2342
 120286-4 *Metarhizium anisopliae* 2343
 121186-1 *Nomuraea rileyi* 2395
 130586-14 *Nomuraea rileyi* 2174
 130586-17 *Metarhizium album* 2176
 130586-18 *Metarhizium album* 2177
 130586-19 *Metarhizium album* 2178
 130586-20 *Metarhizium album* 2179
 130586-3 *Paecilomyces farinosus* 2175
 131286-1 *Verticillium cinnamoneum*
 2399
 131286-13 *Aschersonia insperata* 2398
 131286-19 *Aschersonia insperata* 2397
 131286-19 *Aschersonia insperata* 2351
 131286-6 *Paecilomyces* sp. 2378
 131286-6 *Paecilomyces* sp. 2350
 14 *Verticillium* nr. *aranearium* 1905
 140486 *Metarhizium* sp. 2224
 140486-1 *Metarhizium* sp. 2225
 140486-1 *Metarhizium* sp. 2210
 140486-1 *Aspergillus* nr. *parasiticus* 2173
 161085-11 *Torrubiella homopterorum*
 2045
 161085-35 *Metarhizium anisopliae* 2038
 161085-36 *Metarhizium anisopliae* 2039
 161285-1 *Paecilomyces fumosoroseus*
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 170386-1 *Metarhizium anisopliae* var.
majus 2151
 171085-1 *Beauveria bassiana* 2040
 181286-1B *Hirsutella citriformis* 2347
 190386-1 *Paecilomyces guaensis* 2152
 190688-1 *Hirsutella verticilloides* 2599
 2 *Calcarisporium ovalisporum* 1907
 200386-2 *Metarhizium anisopliae* 2153
 201286-2 *Hirsutella guyana* 2387
 201286-2 *Hirsutella guyana* 2352
 201286-4 *Metarhizium anisopliae* 2353
 201286-5 *Paecilomyces fumosoroseus*
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 201286-6 *Paecilomyces* sp. 2354
 201286-7 *Paecilomyces farinosus* 2355
 201286-8 *Aschersonia insperata* 2356
 220386-1 *Hirsutella bogoriensis* 2187
 220386-1 *Aschersonia aleyrodis* 2154

220786-1 *Metarhizium anisopliae* var.
anisopliae 2230
 221086-1 *Paecilomyces farinosus* 2344
 281085-1 *Beauveria bassiana* 2041
 3 *Nomuraea rileyi* 1893
 301286-7 *Aschersonia insperata* 2357
 301286-8 *Aschersonia insperata* 2358
 301286-9 *Hirsutella insperata* 2396
 5 *Hirsutella citriformis* 1908
 7 *Nomuraea atypicola* 1904
 9(ext.myc.) *Torrubiella raticaudata*
 1916
 9(int.myc.) *Gibellula clavulifera* var. *alba*
 1909
 A *Zoophtora radicans* 1699
 A *Beauveria brongniartii* 1431
 B *Metarhizium anisopliae* 1432
 Cov-2 *Calcarisporium ovalisporum* 2035
 Cov-5 *Calcarisporium ovalisporum* 2036
 E Unidentified 1703
 Gib-Gam *Gibellula pulchra* 1732
 H.min. *Hirsutella citriformis* 1549
 H.Pal. *Hirsutella citriformis* 1550
 H.sep. *Hirsutella* sp. 1551
 II.1 *Metarhizium anisopliae* 1435
 Lib.11 *Metarhizium flavoviride* var. *mi-*
nus 1546
 Lib.16 *Metarhizium flavoviride* var. *mi-*
nus 1547
 Ma Pal.I *Metarhizium anisopliae* 1548
 Ma Pal.II *Metarhizium anisopliae* 1545
 MALBIRRI *Metarhizium flavoviride*
 var. *minus* 1945
 MLAG *Metarhizium album* 1942
 MLAGwhite *Metarhizium album* 1943
 MMQ *Metarhizium anisopliae* var. *ma-*
jus 1946
 MPAL *Metarhizium album* 1941
 Nr-B *Nomuraea rileyi* 1761
 PAEC *Paecilomyces lilacinus* 1552

Romney, Steven V.
 LGNC-1 *Lagenidium giganteum* 373

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1269 *Basidiobolus haptospora* 263
 1737 *Basidiobolus microsporus* 268
 2088 *Basidiobolus microsporus* 269
 2252 *Basidiobolus haptospora* 264
 228 *Basidiobolus haptospora* 261
 334 *Basidiobolus ranarum* 260
 962 *Basidiobolus microsporus* 265
 964 *Basidiobolus haptospora* 262
 977 *Basidiobolus microsporus* 266
 982 *Basidiobolus microsporus* 267

Sánchez Peña, Sergio René

1 *Metarhizium anisopliae* 2764
 2 *Verticillium* sp. 2832
 3 *Verticillium* sp. 2822
 3-2 *Beauveria bassiana* 2857
 4-2 *Conidiobolus* sp. 2819
 A1 *Paecilomyces tenuipes* 2488
 A2 *Paecilomyces tenuipes* 2489
 B1 *Paecilomyces tenuipes* 2490
 B2 *Paecilomyces tenuipes* 2491
 Trachym 1 *Beauveria bassiana* 2484

Trachym 2 *Beauveria bassiana* 2485
 Trachym 3 *Beauveria bassiana* 2486

Sandoval, Sonia

87 *Metarhizium* sp. 2556
 95 *Beauveria bassiana* 2557

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87-1 *Beauveria bassiana* 2417
 87-2 *Fusarium* sp. 2418

Schaerffenberg, Bruno

Ma1 *Metarhizium anisopliae* 847
 Ma10 *Metarhizium anisopliae* 851
 Ma11 *Metarhizium anisopliae* 853
 Ma12 *Metarhizium anisopliae* 856
 Ma13 *Metarhizium anisopliae* 845
 Ma14 *Metarhizium anisopliae* 854
 Ma15 *Metarhizium anisopliae* 850
 Ma16 *Metarhizium anisopliae* 844
 Ma17 *Metarhizium anisopliae* 848
 Ma18 *Metarhizium anisopliae* 846
 Ma19 *Metarhizium anisopliae* 858
 Ma2 *Metarhizium anisopliae* 862
 Ma20 *Metarhizium anisopliae* 861
 Ma3 *Metarhizium anisopliae* 863
 Ma4 *Metarhizium anisopliae* 859
 Ma5 *Metarhizium anisopliae* 855
 Ma6 *Metarhizium anisopliae* 852
 Ma7 *Metarhizium anisopliae* 860
 Ma8 *Metarhizium anisopliae* 849
 Ma9 *Metarhizium anisopliae* 857

Searle, Tanya

CW1 *Beauveria bassiana* 2983
 CW2 *Beauveria bassiana* 2984
 CW3 *Beauveria bassiana* 2985
 CW4 *Beauveria bassiana* 2986
 CWMA *Metarhizium anisopliae* 2981
 E *Metarhizium anisopliae* var. *aniso-*
pliae 2134
 F *Metarhizium anisopliae* var. *anisopliae*
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 K *Metarhizium anisopliae* var. *aniso-*
pliae 2136
 LD1 *Beauveria bassiana* 2987
 LD2 *Beauveria bassiana* 2988
 LD3 *Beauveria bassiana* 2989
 LD4 *Beauveria bassiana* 2990
 LD5 *Beauveria bassiana* 2991
 N *Metarhizium anisopliae* var. *aniso-*
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 PAMA *Metarhizium anisopliae* 2982
 Q *Metarhizium anisopliae* var. *aniso-*
pliae 2137
 W *Metarhizium anisopliae* var. *aniso-*
pliae 2138
 Z *Metarhizium anisopliae* var. *anisopliae*
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Shepard, B.M.

NrMin-1 *Nomuraea rileyi* 1758
 NrMin-14 *Nomuraea rileyi* 1756
 NrMin-19 *Nomuraea rileyi* 1757
 NrMin-23 *Nomuraea rileyi* 1760
 NrMin-5 *Nomuraea rileyi* 1759

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Shimazu, Mitsuaki
Sweeney, Anthony W.

Shimazu, Mitsuaki

- 48a *Paecilomyces flavovirescens* 1686
- F-16 *Pandora delphacis* 1124
- F-17 *Zoophthora radicans* 1125
- F-185 *Beauveria bassiana* 1677
- F-237 *Beauveria bassiana* 1678
- F-25 *Conidiobolus obscurus* 1131
- F-263 *Beauveria bassiana* 1679
- F-313 *Beauveria brongniartii* 1680
- F-32 *Pandora delphacis* 1132
- F-327 *Entomophaga aulicae* 1657
- F-33 *Pandora delphacis* 1133
- F-333 *Beauveria* sp. 1681
- F-339 *Entomophaga aulicae* 1656
- F-339 *Entomophaga aulicae* 1140
- F-343 *Entomophaga aulicae* 1655
- F-344 *Erynia* sp. 1143
- F-356 *Furia neopyralidarum* 1145
- F-357(11) *Beauveria amorpha* 1682
- F-359(30) *Beauveria bassiana* 1683
- F-36 *Pandora neoaphidis* 1134
- F-382 *Conidiobolus obscurus* 1146
- F-43 *Zoophthora radicans* 1136
- F-430(4) *Paecilomyces andoi* 1684
- F-446 *Entomophaga maimaiga* 1658
- F-448(1) *Zoophthora radicans* 1674
- F-448(2) *Zoophthora radicans* 1675
- F-450 *Beauveria* sp. 1685
- F-457 *Entomophaga asiatica* 1659
- F-522 *Cordyceps militaris* 2416
- F-530-1 *Entomophaga aulicae* 2374
- F-530-2 *Entomophaga aulicae* 2373
- F-531 *Entomophaga aulicae* 2372
- F-54 *Pandora neoaphidis* 1137
- F-541-1 *Entomophaga maimaiga* 2371
- F-541-2 *Entomophaga maimaiga* 2370
- F-545 *Tilachlidium* sp. 2415
- F-553-1 *Entomophaga aulicae* 2365
- F-553-3 *Entomophaga aulicae* 2363
- F-554-1 *Entomophaga aulicae* 2369
- F-554-2 *Entomophaga aulicae* 2368
- F-554-3 *Entomophaga aulicae* 2367
- F-554-4 *Entomophaga aulicae* 2362
- F-555 *Entomophaga aulicae* 2366
- F-56 *Pandora delphacis* 1268
- F-57 *Basidiobolus ranarum* 1139
- F-77 *Beauveria brongniartii* 1676
- FE1 *Pandora dipterigena* 1923
- FE2 Unidentified 1922
- FE3 *Zoophthora radicans* 1921

Sivcev, Ivan L.

- 160/85 *Conidiobolus* sp. 2130
- 174/85 *Pandora neoaphidis* 2108
- 184/85 *Pandora neoaphidis* 2109
- 185/85 *Pandora neoaphidis* 2110
- 198/85 *Pandora neoaphidis* 2123
- 20/86 *Erynia* sp. 2279
- 202 Unidentified 1693
- 21/85 *Pandora neoaphidis* 2016
- 216 Unidentified 1694
- 217 *Pandora neoaphidis* 1695
- 228/85 *Pandora neoaphidis* 2111
- 229/85 *Pandora neoaphidis* 2112
- 249/85 *Pandora neoaphidis* 2124
- 261/85 *Pandora neoaphidis* 2128

- 271 *Pandora neoaphidis* 1786
- 271/85 *Pandora neoaphidis* 2114
- 278 *Pandora neoaphidis* 1785
- 280/85 *Pandora neoaphidis* 2115
- 281 *Pandora neoaphidis* 1784
- 282/85 *Pandora neoaphidis* 2116
- 284/85 *Pandora neoaphidis* 2117
- 287 *Verticillium lecanii* 1787
- 291/85 *Pandora neoaphidis* 2118
- 294/85 *Pandora neoaphidis* 2119
- 297/85 *Pandora neoaphidis* 2120
- 301/85 *Pandora neoaphidis* 2121
- 304/85 *Pandora neoaphidis* 2122
- 42/86 *Erynia* sp. 2292
- 46/86 *Pandora neoaphidis* 2280
- 52/86 *Zoophthora phalloides* 2281
- 53/86 *Pandora neoaphidis* 2293
- 55/85 Unidentified 2022
- 55/86 *Erynia* sp. 2294
- 63/85 *Pandora neoaphidis* 2019
- 65/85 *Pandora neoaphidis* 2020
- 74/85 *Pandora neoaphidis* 2017
- 76/85 *Pandora neoaphidis* 2018
- F-19 *Pandora neoaphidis* 1825
- F-30 *Pandora neoaphidis* 1827
- F-34 *Pandora neoaphidis* 1826
- R-1 *Pandora neoaphidis* 1696
- V-11 *Pandora neoaphidis* 1824

Skinner, Margaret

- Ch:BG:60(5WM) *Hirsutella* sp. 1 2939
- Ch:BG:61(8WM) *Hirsutella* sp. 1 2940

Smith, Michael

- I01:020 *Conidiobolus* sp. 1488
- K13:004 *Conidiobolus* sp. 1445
- L05:001 *Conidiobolus* sp. 1444
- N01:141 *Conidiobolus* sp. 1485
- O08:017 *Conidiobolus* sp. 1486
- Q01:119 *Conidiobolus* sp. 1487

Soares, George G.

- 1 *Paecilomyces fumosoroseus* 887
- 1 *Fusarium coccophilum* 821
- 10 *Beauveria bassiana* 814
- 12 *Beauveria bassiana* 815
- 17 *Metarhizium anisopliae* 817
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- 20 *Beauveria bassiana* 816
- 21 *Metarhizium anisopliae* 819
- 3 *Beauveria bassiana* 812
- 34 *Beauveria bassiana* 886
- 6 *Beauveria bassiana* 813
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- Tc4c *Tolyphocladium cylindrospororum* 1580

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- 10 *Nomuraea rileyi* 481
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- 81223-1 *Gibellula* sp. 569
- 81224-2 *Conidiobolus coronatus* 567
- 81225-1 *Hirsutella* sp. 568
- 81226-1 *Conidiobolus* sp. 596
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- 81226-3 *Beauveria bassiana* 566
- 81227-2 *Conidiobolus* sp. 595

- 81227-3 *Conidiobolus* nr. *coronatus* 600
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- 8133-1 *Conidiobolus* sp. 605
- 8133-1 *Conidiobolus coronatus* 597
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- 8133-2 *Pandora delphacis* 603
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- 8133-2 *Pandora delphacis* 593
- 8133-3 *Nomuraea rileyi* 558
- 8135 *Conidiobolus* nr. *coronatus* 598
- 84528-1 *Batkoc major* 1427
- 84626-3 *Entomophaga maimaiga* 1390
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- 187 *Tolyphocladium cylindrospororum* 2778

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- 5 *Pandora neoaphidis* 3250
- 6 *Pandora neoaphidis* 3251

Strongman, Doug

- 1 *Hirsutella* sp. 2581

Sweeney, Anthony W.

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Vincent, Michael A.

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B-33 *Zoophthora radicans* 1503
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3	<i>Paecilomyces farinosus</i>	124	<i>Conidiobolus obscurus</i>	208	<i>Conidiobolus thromboides</i>
5	<i>Conidiobolus thromboides</i>	125	<i>Conidiobolus obscurus</i>	211	<i>Conidiobolus sp.</i>
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15	<i>Conidiobolus thromboides</i>	128	<i>Pandora neoaphidis</i>	215	<i>Batkoia gigantea</i>
17	<i>Verticillium lecanii</i>	129	<i>Conidiobolus obscurus</i>	217	<i>Pandora blunckii</i>
20	<i>Paecilomyces farinosus</i>	131	<i>Pandora dipterigena</i>	218	<i>Coelomycidium simulii</i>
21	<i>Zoophthora radicans</i>	133	<i>Conidiobolus obscurus</i>	219	<i>Erynia rhizospora</i>
22	<i>Conidiobolus thromboides</i>	134	<i>Pandora delphacis</i>	220	<i>Beauveria bassiana</i>
23	<i>Metarhizium anisopliae</i>	135	<i>Nomuraea rileyi</i>	221	<i>Zoophthora radicans</i>
29	<i>Conidiobolus thromboides</i>	137	<i>Hirsutella thompsonii</i>	222	<i>Zoophthora radicans</i>
30	<i>Hirsutella gigantea</i>	138	<i>Pandora nr. echinospora</i>	223	<i>Zoophthora radicans</i>
32	<i>Beauveria brongniartii</i>	139	<i>Zoophthora radicans</i>	224	<i>Zoophthora radicans</i>
38	<i>Paecilomyces farinosus</i>	141	<i>Zoophthora radicans</i>	225	<i>Zoophthora radicans</i>
39	<i>Conidiobolus thromboides</i>	142	<i>Zoophthora radicans</i>	226	<i>Zoophthora radicans</i>
40	<i>Conidiobolus thromboides</i>	143	<i>Zoophthora radicans</i>	227	<i>Zoophthora radicans</i>
41	<i>Conidiobolus thromboides</i>	144	<i>Zoophthora radicans</i>	228	<i>Zoophthora radicans</i>
42	<i>Conidiobolus thromboides</i>	145	<i>Zoophthora radicans</i>	229	<i>Zoophthora radicans</i>
44	<i>Zoophthora radicans</i>	146	<i>Zoophthora radicans</i>	230	<i>Zoophthora radicans</i>
45	<i>Zoophthora radicans</i>	147	<i>Conidiobolus sp.</i>	231	<i>Zoophthora radicans</i>
50	<i>Zoophthora radicans</i>	148	<i>Conidiobolus sp.</i>	232	<i>Zoophthora radicans</i>
51	<i>Entomophaga aulicae</i>	149	<i>Beauveria bassiana</i>	233	<i>Zoophthora radicans</i>
52	<i>Zoophthora radicans</i>	150	<i>Beauveria bassiana</i>	234	<i>Zoophthora radicans</i>
55	<i>Paecilomyces farinosus</i>	151	<i>Beauveria bassiana</i>	235	<i>Zoophthora radicans</i>
57	<i>Conidiobolus thromboides</i>	152	<i>Beauveria bassiana</i>	237	<i>Zoophthora radicans</i>
58	<i>Conidiobolus thromboides</i>	153	<i>Beauveria bassiana</i>	238	<i>Zoophthora radicans</i>
59	<i>Conidiobolus thromboides</i>	154	<i>Beauveria bassiana</i>	239	<i>Zoophthora radicans</i>
63	<i>Conidiobolus thromboides</i>	155	<i>Beauveria bassiana</i>	241	<i>Hirsutella thompsonii</i>
64	<i>Conidiobolus thromboides</i>	156	<i>Beauveria bassiana</i>	242	<i>Conidiobolus thromboides</i>
67	<i>Conidiobolus obscurus</i>	157	<i>Beauveria bassiana</i>	243	<i>Conidiobolus obscurus</i>
68	<i>Zoophthora radicans</i>	158	<i>Beauveria bassiana</i>	244	<i>Conidiobolus thromboides</i>
70	<i>Conidiobolus thromboides</i>	159	<i>Beauveria bassiana</i>	245	<i>Conidiobolus thromboides</i>
72	<i>Zoophthora radicans</i>	160	<i>Beauveria bassiana</i>	246	<i>Conidiobolus thromboides</i>
73	<i>Conidiobolus thromboides</i>	161	<i>Zoophthora radicans</i>	247	<i>Conidiobolus thromboides</i>
74	<i>Conidiobolus obscurus</i>	162	<i>Zoophthora radicans</i>	248	<i>Conidiobolus thromboides</i>
75	<i>Zoophthora radicans</i>	163	<i>Zoophthora radicans</i>	249	<i>Conidiobolus thromboides</i>
78	<i>Pandora neoaphidis</i>	164	<i>Entomophaga aulicae</i>	250	<i>Conidiobolus thromboides</i>
79	<i>Conidiobolus osmodes</i>	165	<i>Entomophaga aulicae</i>	251	<i>Entomophaga aulicae</i>
80	<i>Zoophthora radicans</i>	166	<i>Entomophaga aulicae</i>	252	<i>Beauveria bassiana</i>
81	<i>Zoophthora radicans</i>	167	<i>Entomophaga aulicae</i>	253	<i>Hirsutella thompsonii</i>
83	<i>Conidiobolus thromboides</i>	168	<i>Entomophaga aulicae</i>	254	<i>Hirsutella thompsonii</i>
84	<i>Conidiobolus thromboides</i>	172	<i>Entomophaga aulicae</i>	255	<i>Hirsutella thompsonii</i>
85	<i>Conidiobolus thromboides</i>	174	<i>Conidiobolus obscurus</i>	256	<i>Hirsutella thompsonii</i>
86	<i>Conidiobolus thromboides</i>	175	<i>Conidiobolus obscurus</i>	257	<i>Hirsutella thompsonii</i>
87	<i>Conidiobolus thromboides</i>	177	<i>Hirsutella gigantea</i>	258	<i>Hirsutella thompsonii</i>
88	<i>Zoophthora radicans</i>	178	<i>Hirsutella gigantea</i>	259	<i>Hirsutella thompsonii</i>
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93	<i>Conidiobolus sp.</i>	180	<i>Saprolegnia sp.</i>	261	<i>Basidiobolus haptospora</i>
94	<i>Conidiobolus sp.</i>	181	<i>Pandora neoaphidis</i>	262	<i>Basidiobolus haptospora</i>
97	<i>Conidiobolus obscurus</i>	182	<i>Conidiobolus obscurus</i>	263	<i>Basidiobolus haptospora</i>
99	<i>Conidiobolus thromboides</i>	183	<i>Zoophthora radicans</i>	264	<i>Basidiobolus haptospora</i>
100	<i>Conidiobolus thromboides</i>	184	<i>Zoophthora radicans</i>	265	<i>Basidiobolus microsporus</i>
101	<i>Conidiobolus thromboides</i>	185	<i>Zoophthora radicans</i>	266	<i>Basidiobolus microsporus</i>
102	<i>Conidiobolus thromboides</i>	186	<i>Zoophthora radicans</i>	267	<i>Basidiobolus microsporus</i>
103	<i>Zoophthora radicans</i>	187	<i>Zoophthora radicans</i>	268	<i>Basidiobolus microsporus</i>
104	<i>Zoophthora radicans</i>	188	<i>Zoophthora radicans</i>	269	<i>Basidiobolus microsporus</i>
105	<i>Zoophthora radicans</i>	189	<i>Zoophthora radicans</i>	270	<i>Basidiobolus sp.</i>
106	<i>Zoophthora radicans</i>	191	<i>Zoophthora phytonomi</i>	271	<i>Basidiobolus sp.</i>
107	<i>Zoophthora radicans</i>	192	<i>Zoophthora phytonomi</i>	272	<i>Basidiobolus haptospora</i>
108	<i>Zoophthora radicans</i>	194	<i>Conidiobolus thromboides</i>	273	<i>Basidiobolus sp.</i>
109	<i>Zoophthora radicans</i>	195	<i>Zoophthora radicans</i>	274	<i>Conidiobolus coronatus</i>
110	<i>Zoophthora radicans</i>	196	<i>Conidiobolus pseudapiculatus</i>	275	<i>Beauveria bassiana</i>
111	<i>Zoophthora radicans</i>	198	<i>Entomophaga aulicae</i>	276	<i>Beauveria bassiana</i>
112	<i>Zoophthora radicans</i>	199	<i>Pandora nouri</i>	277	<i>Beauveria bassiana</i>
113	<i>Zoophthora phytonomi</i>	201	<i>Beauveria bassiana</i>	278	<i>Beauveria bassiana</i>
114	<i>Zoophthora radicans</i>	202	<i>Zoophthora phytonomi</i>	279	<i>Beauveria bassiana</i>
115	<i>Conidiobolus thromboides</i>	203	<i>Schizangiella serpentis</i>	280	<i>Beauveria bassiana</i>
116	<i>Pandora bullata</i>	204	<i>Verticillium lecanii</i>	281	<i>Beauveria bassiana</i>
120	<i>Conidiobolus thromboides</i>	205	<i>Conidiobolus coronatus</i>	282	<i>Beauveria bassiana</i>

283	<i>Beauveria bassiana</i>	366	<i>Pandora nouri</i>	450	<i>Conidiobolus paulus</i>
284	<i>Beauveria bassiana</i>	368	<i>Myriodontium keratinophilum</i>	451	<i>Conidiobolus adiaeetus</i>
285	<i>Beauveria bassiana</i>	369	<i>Pandora kondoensis</i>	452	<i>Conidiobolus brefeldianus</i>
286	<i>Beauveria bassiana</i>	370	<i>Zoophthora radicans</i>	453	<i>Conidiobolus pumilus</i>
287	<i>Beauveria bassiana</i>	372	<i>Culicinomyces clavisporus</i>	454	<i>Entomophthora muscae</i>
288	<i>Beauveria bassiana</i>	373	<i>Lagenidium giganteum</i>	455	<i>Metarhizium anisopliae</i>
289	<i>Beauveria bassiana</i>	374	<i>Massospora cicadina</i>	456	<i>Metarhizium anisopliae</i>
290	<i>Beauveria bassiana</i>	375	<i>Entomophaga macleodii</i>	457	<i>Metarhizium anisopliae</i>
291	<i>Beauveria bassiana</i>	376	<i>Entomophaga macleodii</i>	458	<i>Pandora delphacis</i>
292	<i>Beauveria bassiana</i>	377	<i>Sorosporella</i> sp.	459	<i>Pandora delphacis</i>
293	<i>Beauveria bassiana</i>	379	<i>Zoophthora radicans</i>	460	<i>Pandora delphacis</i>
294	<i>Paecilomyces farinosus</i>	380	<i>Nomuraea rileyi</i>	461	<i>Pandora delphacis</i>
295	<i>Beauveria bassiana</i>	381	<i>Pandora neoaphidis</i>	468	<i>Zoophthora lanceolata</i>
296	<i>Beauveria bassiana</i>	382	<i>Entomophaga macleodii</i>	469	<i>Zoophthora lanceolata</i>
297	<i>Metarhizium anisopliae</i> var. <i>majus</i>	383	<i>Entomophaga calopteni</i>	470	<i>Furia virescens</i>
298	<i>Metarhizium anisopliae</i> var. <i>majus</i>	384	<i>Beauveria bassiana</i>	471	<i>Conidiobolus coronatus</i>
299	<i>Beauveria bassiana</i>	385	<i>Paecilomyces</i> sp.	472	<i>Metarhizium anisopliae</i>
300	<i>Beauveria bassiana</i>	386	<i>Myriodontium keratinophilum</i>	473	<i>Metarhizium anisopliae</i> var. <i>majus</i>
301	<i>Beauveria bassiana</i>	387	<i>Entomophthora culicis</i>	474	<i>Beauveria bassiana</i>
302	<i>Beauveria bassiana</i>	388	<i>Zoophthora radicans</i>	475	<i>Paecilomyces farinosus</i>
303	<i>Beauveria bassiana</i>	389	<i>Zoophthora radicans</i>	476	<i>Paecilomyces farinosus</i>
304	<i>Beauveria bassiana</i>	390	<i>Entomophaga calopteni</i>	477	<i>Beauveria bassiana</i>
305	<i>Beauveria bassiana</i>	391	<i>Conidiobolus</i> sp.	478	<i>Pandora delphacis</i>
306	<i>Beauveria bassiana</i>	392	<i>Entomophthora muscae</i>	481	<i>Nomuraea rileyi</i>
307	<i>Beauveria bassiana</i>	393	<i>Entomophaga aulicae</i>	482	<i>Nomuraea rileyi</i>
308	<i>Beauveria bassiana</i>	394	<i>Furia virescens</i>	483	<i>Nomuraea rileyi</i>
309	<i>Paecilomyces</i> sp.	395	<i>Batkoia apiculata</i>	484	<i>Paecilomyces reniformis</i>
310	<i>Verticillium lecanii</i>	396	<i>Zoophthora anglica</i>	485	<i>Metarhizium anisopliae</i>
311	<i>Verticillium lecanii</i>	397	<i>Pandora dipterigena</i>	486	<i>Metarhizium anisopliae</i>
312	<i>Verticillium lecanii</i>	399	<i>Erynia ovispora</i>	487	<i>Metarhizium anisopliae</i>
313	<i>Verticillium lecanii</i>	400	<i>Erynia ovispora</i>	488	<i>Metarhizium anisopliae</i>
314	<i>Verticillium lecanii</i>	403	<i>Batkoia gigantea</i>	489	<i>Metarhizium anisopliae</i>
317	<i>Beauveria bassiana</i>	404	<i>Zoophthora radicans</i>	490	<i>Hirsutella citriformis</i>
318	<i>Beauveria bassiana</i>	405	<i>Conidiobolus coronatus</i>	491	<i>Zoophthora radicans</i>
319	<i>Beauveria bassiana</i>	406	<i>Conidiobolus coronatus</i>	496	<i>Entomophaga macleodii</i>
320	<i>Beauveria bassiana</i>	407	<i>Zoophthora radicans</i>	497	<i>Entomophaga calopteni</i>
321	<i>Verticillium lecanii</i>	408	<i>Entomophaga calopteni</i>	498	<i>Entomophaga calopteni</i>
322	<i>Paecilomyces javanicus</i>	410	<i>Paecilomyces lilacinus</i>	499	<i>Entomophaga macleodii</i>
323	<i>Nomuraea rileyi</i>	412	<i>Beauveria bassiana</i>	500	<i>Entomophaga calopteni</i>
324	<i>Metarhizium anisopliae</i>	413	<i>Beauveria bassiana</i>	501	<i>Beauveria bassiana</i>
325	<i>Beauveria bassiana</i>	414	<i>Hirsutella thompsonii</i>	502	<i>Beauveria bassiana</i>
326	<i>Beauveria bassiana</i>	416	<i>Beauveria bassiana</i>	503	<i>Beauveria bassiana</i>
328	<i>Entomophaga australiensis</i>	418	<i>Conidiobolus coronatus</i>	504	<i>Beauveria bassiana</i>
331	<i>Entomophaga australiensis</i>	419	<i>Conidiobolus coronatus</i>	505	<i>Beauveria bassiana</i>
333	<i>Beauveria bassiana</i>	421	<i>Conidiobolus coronatus</i>	506	<i>Beauveria bassiana</i>
334	<i>Beauveria bassiana</i>	422	<i>Conidiobolus coronatus</i>	507	<i>Beauveria bassiana</i>
335	<i>Beauveria bassiana</i>	425	<i>Zoophthora aphidis</i>	509	<i>Beauveria bassiana</i>
336	<i>Beauveria bassiana</i>	426	<i>Zoophthora lanceolata</i>	510	<i>Beauveria bassiana</i>
337	<i>Beauveria bassiana</i>	427	<i>Furia virescens</i>	511	<i>Conidiobolus coronatus</i>
338	<i>Beauveria bassiana</i>	429	<i>Paecilomyces reniformis</i>	512	<i>Conidiobolus coronatus</i>
340	<i>Beauveria bassiana</i>	430	<i>Aschersonia aleyrodis</i>	514	<i>Conidiobolus coronatus</i>
341	<i>Aschersonia aleyrodis</i>	431	<i>Aschersonia goldiana</i>	517	<i>Conidiobolus</i> sp.
342	<i>Aschersonia aleyrodis</i>	432	<i>Aschersonia aleyrodis</i>	520	<i>Conidiobolus coronatus</i>
343	<i>Aschersonia goldiana</i>	433	<i>Beauveria bassiana</i>	522	<i>Conidiobolus</i> sp.
344	<i>Beauveria bassiana</i>	434	<i>Conidiobolus obscurus</i>	523	<i>Conidiobolus coronatus</i>
346	<i>Metarhizium anisopliae</i>	435	<i>Metarhizium anisopliae</i>	524	<i>Conidiobolus coronatus</i>
349	<i>Conidiobolus coronatus</i>	436	<i>Metarhizium anisopliae</i>	525	<i>Conidiobolus coronatus</i>
350	<i>Beauveria bassiana</i>	437	<i>Metarhizium anisopliae</i>	527	<i>Tilletiopsis</i> sp.
351	<i>Zoophthora phalloides</i>	438	<i>Metarhizium anisopliae</i>	528	<i>Conidiobolus coronatus</i>
352	<i>Zoophthora phalloides</i>	439	<i>Metarhizium anisopliae</i>	531	<i>Paecilomyces farinosus</i>
353	<i>Beauveria bassiana</i>	440	<i>Metarhizium anisopliae</i>	532	<i>Hirsutella citriformis</i>
354	<i>Conidiobolus obscurus</i>	441	<i>Metarhizium anisopliae</i>	533	<i>Beauveria bassiana</i>
355	<i>Conidiobolus obscurus</i>	442	<i>Metarhizium anisopliae</i>	534	<i>Beauveria bassiana</i>
356	<i>Beauveria bassiana</i>	443	<i>Metarhizium anisopliae</i>	535	<i>Beauveria bassiana</i>
357	<i>Beauveria bassiana</i>	444	<i>Metarhizium anisopliae</i>	536	<i>Beauveria bassiana</i>
358	<i>Nomuraea rileyi</i>	445	<i>Metarhizium anisopliae</i>	538	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i>
359	<i>Zoophthora radicans</i>	446	<i>Metarhizium anisopliae</i>	539	<i>Nomuraea rileyi</i>
362	<i>Pandora nouri</i>	447	<i>Conidiobolus osmodes</i>	543	<i>Metarhizium anisopliae</i>
363	<i>Conidiobolus thrombooides</i>	448	<i>Conidiobolus rhyssoporus</i>	547	<i>Beauveria bassiana</i>
365	<i>Entomophaga australiensis</i>	449	<i>Conidiobolus bangalorensis</i>		

549	Metarhizium anisopliae	634	Conidiobolus thromboides	719	Beauveria bassiana
550	Metarhizium anisopliae	635	Conidiobolus thromboides	720	Paecilomyces javanicus
551	Metarhizium anisopliae	636	Pandora neoaphidis	721	Beauveria bassiana
552	Metarhizium anisopliae	637	Pandora neoaphidis	722	Paecilomyces fumosoroseus
555	Verticillium lecanii	638	Pandora neoaphidis	723	Paecilomyces fumosoroseus
556	Entomophthora muscae	639	Pandora neoaphidis	724	Metarhizium anisopliae
557	Entomophthora muscae	640	Eryniopsis caroliniana	725	Metarhizium anisopliae
558	Nomuraea rileyi	641	Eryniopsis caroliniana	727	Metarhizium anisopliae
560	Beauveria bassiana	642	Eryniopsis caroliniana	728	Metarhizium anisopliae
563	Conidiobolus coronatus	644	Culicinomyces clavisporus	729	Metarhizium anisopliae
564	Conidiobolus sp.	645	Culicinomyces clavisporus	730	Beauveria bassiana
565	Conidiobolus coronatus	646	Entomophaga calopteni	731	Beauveria bassiana
566	Beauveria bassiana	648	Paecilomyces farinosus	732	Beauveria bassiana
567	Conidiobolus coronatus	649	Conidiobolus thromboides	733	Beauveria bassiana
568	Hirsutella sp.	650	Macrobiotophthora vermicola	734	Beauveria bassiana
569	Gibellula sp.	651	Entomophthora muscae	735	Beauveria bassiana
570	Gibellula sp.	652	Beauveria bassiana	736	Beauveria bassiana
572	Tilletiopsis sp.	653	Trichothecium sp.	737	Beauveria bassiana
573	Tilletiopsis sp.	654	Beauveria bassiana	738	Beauveria bassiana
575	Pandora delphacis	655	Conidiobolus coronatus	739	Beauveria bassiana
576	Metarhizium anisopliae	656	Beauveria brongniartii	741	Paecilomyces sp.
577	Paecilomyces reniformis	657	Pandora delphacis	742	Furia americana
579	Pandora delphacis	659	Pandora delphacis	743	Entomophaga australiensis
580	Pandora delphacis	660	Pandora delphacis	744	Paecilomyces fumosoroseus
581	Entomophaga australiensis	662	Neozygites sp.	748	Lagenidium giganteum
582	Culicinomyces clavisporus	663	Furia ithacensis	749	Lagenidium giganteum
583	Culicinomyces clavisporus	665	Pandora delphacis	750	Erynia aquatica
584	Culicinomyces clavisporus	666	Pandora delphacis	751	Beauveria bassiana
585	Culicinomyces clavisporus	667	Pandora delphacis	752	Beauveria bassiana
587	Metarhizium anisopliae	668	Pandora delphacis	753	Beauveria bassiana
588	Metarhizium anisopliae	669	Pandora delphacis	754	Beauveria bassiana
589	Metarhizium anisopliae	670	Pandora delphacis	755	Metarhizium anisopliae
590	Beauveria sp.	672	Pandora delphacis	756	Beauveria bassiana
591	Hirsutella citriformis	673	Pandora delphacis	757	Beauveria bassiana
593	Pandora delphacis	674	Pandora delphacis	758	Beauveria bassiana
595	Conidiobolus sp.	676	Pandora delphacis	759	Metarhizium anisopliae
596	Conidiobolus sp.	678	Beauveria brongniartii	760	Metarhizium anisopliae
597	Conidiobolus coronatus	679	Beauveria bassiana	762	Nomuraea rileyi
598	Conidiobolus nr. coronatus	680	Paecilomyces sp.	763	Paecilomyces farinosus
599	Conidiobolus nr. coronatus	681	Beauveria bassiana	764	Erynia aquatica
600	Conidiobolus nr. coronatus	682	Pandora delphacis	765	Entomophaga macleodii
602	Conidiobolus nr. coronatus	683	Metarhizium anisopliae	766	Entomophaga calopteni
603	Pandora delphacis	684	Hirsutella citriformis	767	Entomophaga macleodii
604	Conidiobolus sp.	685	Zoophthora radicans	768	Entomophaga macleodii
605	Conidiobolus sp.	686	Pandora delphacis	769	Entomophaga macleodii
606	Conidiobolus sp.	687	Fusarium sp.	770	Entomophaga macleodii
608	Pandora neoaphidis	689	Ascospaera aggregata	771	Entomophaga macleodii
609	Pandora neoaphidis	690	Ascospaera aggregata	772	Entomophaga macleodii
610	Pandora neoaphidis	691	Ascospaera apis	773	Entomophaga macleodii
611	Pandora neoaphidis	692	Ascospaera apis	774	Entomophaga macleodii
612	Pandora neoaphidis	693	Ascospaera atra	775	Entomophaga macleodii
613	Pandora neoaphidis	694	Ascospaera major	776	Entomophaga macleodii
614	Pandora neoaphidis	695	Ascospaera proliperda	777	Entomophaga macleodii
616	Tolypocladium niveum	696	Ascospaera proliperda	778	Entomophaga macleodii
617	Beauveria brongniartii	697	Paecilomyces farinosus	779	Entomophaga macleodii
618	Entomophaga macleodii	698	Pandora delphacis	781	Furia pieris
619	Entomophaga macleodii	700	Conidiobolus lachnodes	782	Metarhizium anisopliae
620	Entomophaga macleodii	703	Metarhizium anisopliae	783	Beauveria bassiana
621	Entomophaga macleodii	705	Tolypocladium cylindrosporum	784	Beauveria bassiana
623	Entomophaga calopteni	706	Culicinomyces clavisporus	785	Beauveria bassiana
624	Entomophaga macleodii	707	Entomophthora muscae	786	Beauveria bassiana
625	Entomophaga calopteni	708	Beauveria bassiana	787	Beauveria bassiana
626	Entomophaga calopteni	709	Beauveria bassiana	788	Beauveria bassiana
627	Entomophaga tabanivora	711	Nomuraea rileyi	789	Zoophthora radicans
628	Entomophaga macleodii	712	Metarhizium anisopliae	790	Zoophthora radicans
629	Entomophaga macleodii	713	Pandora delphacis	791	Entomophaga australiensis
630	Conidiobolus thromboides	714	Beauveria bassiana	792	Beauveria bassiana
631	Conidiobolus thromboides	716	Pandora delphacis	793	Beauveria bassiana
632	Conidiobolus thromboides	717	Beauveria bassiana	794	Metarhizium anisopliae
633	Conidiobolus thromboides	718	Beauveria bassiana	795	Verticillium lecanii

796	<i>Beauveria bassiana</i>	866	<i>Metarhizium anisopliae</i>	941	<i>Beauveria bassiana</i>
797	<i>Metarhizium anisopliae</i>	867	<i>Metarhizium anisopliae</i>	942	<i>Beauveria bassiana</i>
798	<i>Metarhizium anisopliae</i>	868	<i>Metarhizium anisopliae</i>	943	<i>Beauveria bassiana</i>
799	<i>Paecilomyces farinosus</i>	869	<i>Metarhizium anisopliae</i>	944	<i>Beauveria bassiana</i>
800	<i>Zoophthora radicans</i>	870	<i>Metarhizium anisopliae</i>	945	<i>Beauveria bassiana</i>
801	<i>Erynia rhizospora</i>	871	<i>Metarhizium anisopliae</i>	946	<i>Beauveria bassiana</i>
802	<i>Erynia curvispora</i>	872	<i>Metarhizium anisopliae</i>	947	<i>Beauveria bassiana</i>
803	<i>Entomophthora muscae</i>	873	<i>Metarhizium anisopliae</i>	948	<i>Beauveria bassiana</i>
804	<i>Beauveria bassiana</i>	874	<i>Metarhizium anisopliae</i>	949	<i>Beauveria bassiana</i>
805	<i>Beauveria bassiana</i>	875	<i>Metarhizium anisopliae</i>	950	<i>Beauveria bassiana</i>
806	<i>Beauveria bassiana</i>	876	<i>Erynia sp.</i>	951	<i>Beauveria bassiana</i>
807	<i>Paecilomyces viridis</i>	878	<i>Hirsutella guyana</i>	952	<i>Beauveria bassiana</i>
808	<i>Metarhizium anisopliae</i>	879	<i>Hirsutella guyana</i>	953	<i>Beauveria bassiana</i>
809	<i>Beauveria bassiana</i>	880	<i>Erynia sp.</i>	954	<i>Metarhizium anisopliae</i>
810	<i>Verticillium lecanii</i>	881	<i>Hirsutella guyana</i>	955	<i>Metarhizium anisopliae</i>
811	<i>Verticillium lecanii</i>	882	<i>Hirsutella guyana</i>	956	<i>Beauveria bassiana</i>
812	<i>Beauveria bassiana</i>	883	<i>Hirsutella guyana</i>	957	<i>Beauveria bassiana</i>
813	<i>Beauveria bassiana</i>	884	<i>Erynia sp.</i>	958	<i>Beauveria bassiana</i>
814	<i>Beauveria bassiana</i>	886	<i>Beauveria bassiana</i>	959	<i>Beauveria bassiana</i>
815	<i>Beauveria bassiana</i>	887	<i>Paecilomyces fumosoroseus</i>	960	<i>Metarhizium anisopliae</i>
816	<i>Beauveria bassiana</i>	889	<i>Metarhizium anisopliae</i>	961	<i>Tolypocladium cylindrosporum</i>
817	<i>Metarhizium anisopliae</i>	890	<i>Metarhizium anisopliae</i>	962	<i>Tolypocladium cylindrosporum</i>
818	<i>Metarhizium anisopliae</i>	891	<i>Metarhizium anisopliae</i>	963	<i>Tolypocladium cylindrosporum</i>
819	<i>Metarhizium anisopliae</i>	892	<i>Metarhizium anisopliae</i>	964	<i>Culicinomyces clavisporus</i>
820	<i>Metarhizium anisopliae</i>	893	<i>Metarhizium anisopliae</i>	965	<i>Metarhizium anisopliae</i>
821	<i>Fusarium coccophilum</i>	894	<i>Metarhizium anisopliae</i>	966	<i>Metarhizium anisopliae</i>
822	<i>Zoophthora radicans</i>	895	<i>Metarhizium anisopliae</i>	967	<i>Metarhizium anisopliae</i>
823	<i>Zoophthora radicans</i>	896	<i>Metarhizium anisopliae</i>	968	<i>Metarhizium anisopliae</i>
824	<i>Conidiobolus obscurus</i>	897	<i>Metarhizium anisopliae</i>	970	<i>Hirsutella sp.</i>
825	<i>Pandora kondoiensis</i>	898	<i>Metarhizium anisopliae</i>	971	<i>Paecilomyces sp.</i>
826	<i>Entomophthora muscae</i>	899	<i>Zoophthora radicans</i>	972	<i>Verticillium lecanii</i>
827	<i>Pandora neoaphidis</i>	900	<i>Verticillium lecanii</i>	973	<i>Verticillium lecanii</i>
828	<i>Pandora kondoiensis</i>	901	<i>Metarhizium anisopliae</i>	974	<i>Verticillium lecanii</i>
829	<i>Pandora neoaphidis</i>	902	<i>Metarhizium anisopliae</i>	975	<i>Paecilomyces farinosus</i>
830	<i>Pandora neoaphidis</i>	903	<i>Metarhizium anisopliae</i>	976	<i>Tolypocladium cylindrosporum</i>
831	<i>Pandora neoaphidis</i>	904	<i>Metarhizium anisopliae</i>	977	<i>Metarhizium anisopliae</i>
832	<i>Conidiobolus obscurus</i>	905	<i>Metarhizium anisopliae</i>	978	<i>Metarhizium anisopliae var. majus</i>
833	<i>Pandora neoaphidis</i>	906	<i>Metarhizium anisopliae</i>	979	<i>Beauveria brongniartii</i>
834	<i>Conidiobolus obscurus</i>	907	<i>Metarhizium anisopliae</i>	980	<i>Verticillium lecanii</i>
835	<i>Pandora neoaphidis</i>	908	<i>Metarhizium anisopliae</i>	981	<i>Paecilomyces farinosus</i>
836	<i>Pandora neoaphidis</i>	909	<i>Metarhizium anisopliae</i>	982	<i>Beauveria bassiana</i>
837	<i>Pandora kondoiensis</i>	910	<i>Metarhizium anisopliae</i>	983	<i>Erynia sp.</i>
838	<i>Pandora neoaphidis</i>	911	<i>Metarhizium anisopliae</i>	984	<i>Paecilomyces canadensis</i>
839	<i>Conidiobolus obscurus</i>	912	<i>Metarhizium anisopliae</i>	985	<i>Beauveria brongniartii</i>
840	<i>Entomophaga praxibuli</i>	913	<i>Metarhizium anisopliae</i>	986	<i>Paecilomyces lilacinus</i>
841	<i>Tolypocladium cylindrosporum</i>	914	<i>Zoophthora radicans</i>	988	<i>Metarhizium anisopliae var. majus</i>
842	<i>Beauveria bassiana</i>	915	<i>Pandora blunckii</i>	989	<i>Paecilomyces fumosoroseus</i>
843	<i>Beauveria bassiana</i>	916	<i>Zoophthora anglica</i>	990	<i>Paecilomyces canadensis</i>
844	<i>Metarhizium anisopliae</i>	917	<i>Pandora blunckii</i>	991	<i>Verticillium lecanii</i>
845	<i>Metarhizium anisopliae</i>	919	<i>Batko alicula</i>	992	<i>Aschersonia aleyrodis</i>
846	<i>Metarhizium anisopliae</i>	920	<i>Pandora blunckii</i>	993	<i>Pandora neoaphidis</i>
847	<i>Metarhizium anisopliae</i>	921	<i>Metarhizium anisopliae</i>	994	<i>Verticillium lecanii</i>
848	<i>Metarhizium anisopliae</i>	922	<i>Metarhizium anisopliae</i>	996	<i>Hirsutella saturnae</i>
849	<i>Metarhizium anisopliae</i>	923	<i>Verticillium fusisporum</i>	997	<i>Conidiobolus coronatus</i>
850	<i>Metarhizium anisopliae</i>	925	<i>Metarhizium anisopliae var. anisopliae</i>	998	<i>Entomophaga aulicae</i>
851	<i>Metarhizium anisopliae</i>	926	<i>Zoophthora anglica</i>	999	<i>Entomophthora sp.</i>
852	<i>Metarhizium anisopliae</i>	927	<i>Batko alicula</i>	1000	<i>Pandora blunckii</i>
853	<i>Metarhizium anisopliae</i>	928	<i>Beauveria bassiana</i>	1001	<i>Beauveria bassiana</i>
854	<i>Metarhizium anisopliae</i>	929	<i>Metarhizium anisopliae</i>	1002	<i>Verticillium lecanii</i>
855	<i>Metarhizium anisopliae</i>	930	<i>Beauveria bassiana</i>	1003	<i>Aspergillus flavus</i>
856	<i>Metarhizium anisopliae</i>	931	<i>Beauveria bassiana</i>	1004	<i>Pandora blunckii</i>
857	<i>Metarhizium anisopliae</i>	932	<i>Metarhizium anisopliae</i>	1005	<i>Paecilomyces fumosoroseus</i>
858	<i>Metarhizium anisopliae</i>	933	<i>Beauveria bassiana</i>	1006	<i>Conidiobolus thromboides</i>
859	<i>Metarhizium anisopliae</i>	934	<i>Beauveria bassiana</i>	1007	<i>Beauveria bassiana</i>
860	<i>Metarhizium anisopliae</i>	935	<i>Nomuraea rileyi</i>	1008	<i>Paecilomyces sp.</i>
861	<i>Metarhizium anisopliae</i>	936	<i>Nomuraea rileyi</i>	1009	<i>Metarhizium anisopliae</i>
862	<i>Metarhizium anisopliae</i>	937	<i>Beauveria bassiana</i>	1010	<i>Aspergillus flavus</i>
863	<i>Metarhizium anisopliae</i>	938	<i>Beauveria bassiana</i>	1011	<i>Metarhizium anisopliae</i>
864	<i>Metarhizium anisopliae</i>	939	<i>Metarhizium anisopliae</i>	1013	Unidentified
865	<i>Metarhizium anisopliae</i>			1014	<i>Nomuraea rileyi</i>

1015	Metarhizium anisopliae var. majus	1088	Metarhizium anisopliae	1165	Beauveria bassiana
1016	Beauveria bassiana	1089	Metarhizium anisopliae	1166	Beauveria bassiana
1017	Beauveria bassiana	1090	Metarhizium anisopliae	1167	Beauveria bassiana
1018	Zoophthora radicans	1091	Metarhizium anisopliae	1168	Beauveria bassiana
1019	Zoophthora radicans	1092	Metarhizium anisopliae var. majus	1169	Beauveria bassiana
1020	Zoophthora radicans	1093	Metarhizium anisopliae var. majus	1170	Beauveria bassiana
1021	Zoophthora radicans	1094	Metarhizium anisopliae	1171	Beauveria bassiana
1022	Metarhizium anisopliae	1095	Metarhizium anisopliae	1172	Beauveria bassiana
1023	Metarhizium anisopliae	1096	Hirsutella sp.	1173	Beauveria bassiana
1024	Metarhizium anisopliae	1097	Metarhizium anisopliae	1174	Beauveria bassiana
1025	Metarhizium anisopliae	1098	Beauveria bassiana	1175	Beauveria bassiana
1026	Verticillium lecanii	1099	Metarhizium flavoviride var. minus	1176	Beauveria bassiana
1027	Tolypocladium cylindrosporum	1100	Zoophthora radicans	1177	Beauveria bassiana
1028	Tolypocladium cylindrosporum	1101	Pandora delphacis	1178	Beauveria bassiana
1029	Verticillium lecanii	1102	Verticillium lecanii	1179	Beauveria bassiana
1030	Aschersonia turbinata	1103	Beauveria bassiana	1180	Beauveria bassiana
1032	Verticillium lecanii	1104	Beauveria bassiana	1181	Beauveria bassiana
1033	Verticillium lecanii	1105	Beauveria bassiana	1182	Beauveria bassiana
1034	Hirsutella versicolor	1106	Beauveria bassiana	1183	Beauveria bassiana
1035	Hirsutella citriformis	1107	Beauveria bassiana	1184	Metarhizium flavoviride
1036	Hirsutella citriformis	1108	Paecilomyces farinosus	1185	Beauveria bassiana
1037	Hirsutella versicolor	1109	Verticillium lecanii	1186	Beauveria bassiana
1038	Beauveria bassiana	1110	Beauveria bassiana	1187	Metarhizium anisopliae
1039	Beauveria bassiana	1111	Paecilomyces farinosus	1188	Beauveria bassiana
1040	Beauveria sp.	1112	Metarhizium anisopliae	1189	Beauveria bassiana
1041	Beauveria bassiana	1113	Beauveria bassiana	1190	Beauveria bassiana
1042	Paecilomyces farinosus	1114	Beauveria bassiana	1191	Beauveria bassiana
1043	Paecilomyces farinosus	1115	Beauveria bassiana	1192	Beauveria bassiana
1044	Metarhizium anisopliae	1116	Metarhizium anisopliae	1193	Beauveria bassiana
1045	Metarhizium anisopliae	1117	Beauveria bassiana	1194	Beauveria bassiana
1046	Metarhizium anisopliae	1118	Beauveria bassiana	1195	Beauveria sp.
1047	Nomuraea rileyi	1119	Beauveria bassiana	1196	Beauveria sp.
1048	Zoophthora radicans	1120	Metarhizium anisopliae	1197	Beauveria sp.
1050	Zoophthora radicans	1121	Beauveria bassiana	1198	Beauveria sp.
1051	Unidentified	1122	Beauveria bassiana	1199	Beauveria sp.
1052	Erynia sp.	1123	Sorosporella uvelia	1200	Beauveria sp.
1053	Beauveria bassiana	1124	Pandora delphacis	1201	Beauveria sp.
1054	Beauveria bassiana	1125	Zoophthora radicans	1202	Beauveria sp.
1055	Metarhizium anisopliae	1126	Entomophaga sp.	1203	Beauveria sp.
1056	Metarhizium anisopliae	1127	Furia virescens	1204	Beauveria sp.
1057	Metarhizium anisopliae	1130	Zoophthora radicans	1205	Beauveria sp.
1058	Paecilomyces farinosus	1131	Conidiobolus obscurus	1206	Beauveria sp.
1059	Metarhizium anisopliae	1132	Pandora delphacis	1207	Beauveria sp.
1060	Beauveria bassiana	1133	Pandora delphacis	1208	Beauveria sp.
1061	Beauveria bassiana	1134	Pandora neoaphidis	1209	Beauveria sp.
1062	Hirsutella citriformis	1136	Zoophthora radicans	1210	Beauveria sp.
1063	Hirsutella citriformis	1137	Pandora neoaphidis	1211	Beauveria sp.
1064	Hirsutella citriformis	1139	Basidiobolus ranarum	1212	Trichothecium roseum
1065	Paecilomyces farinosus	1140	Entomophaga aulicae	1213	Beauveria sp.
1066	Metarhizium anisopliae	1143	Erynia sp.	1214	Beauveria sp.
1067	Beauveria brongniartii	1145	Furia neopyralidarum	1215	Beauveria sp.
1068	Beauveria brongniartii	1146	Conidiobolus obscurus	1216	Beauveria sp.
1069	Beauveria brongniartii	1147	Conidiobolus coronatus	1217	Trichothecium sp.
1070	Beauveria brongniartii	1148	Fusarium solani	1218	Beauveria sp.
1071	Beauveria brongniartii	1149	Beauveria bassiana	1219	Beauveria sp.
1072	Beauveria brongniartii	1150	Beauveria bassiana	1220	Beauveria sp.
1073	Beauveria bassiana	1151	Beauveria bassiana	1221	Beauveria sp.
1074	Beauveria bassiana	1152	Aspergillus sp.	1222	Beauveria sp.
1075	Beauveria bassiana	1153	Beauveria bassiana	1223	Trichothecium sp.
1076	Beauveria brongniartii	1154	Beauveria bassiana	1224	Beauveria sp.
1077	Beauveria brongniartii	1155	Beauveria bassiana	1225	Paecilomyces farinosus
1079	Beauveria bassiana	1156	Beauveria bassiana	1226	Trichothecium roseum
1080	Metarhizium anisopliae	1157	Beauveria bassiana	1227	Zoophthora radicans
1081	Beauveria bassiana	1158	Beauveria bassiana	1228	Zoophthora radicans
1082	Zoophthora radicans	1159	Beauveria bassiana	1229	Zoophthora radicans
1083	Metarhizium anisopliae	1160	Beauveria bassiana	1230	Entomophaga sp.
1084	Metarhizium anisopliae	1161	Beauveria bassiana	1231	Zoophthora radicans
1085	Metarhizium anisopliae	1162	Beauveria bassiana	1232	Zoophthora radicans
1086	Metarhizium anisopliae	1163	Beauveria bassiana	1233	Zoophthora radicans
1087	Metarhizium anisopliae	1164	Beauveria bassiana	1234	Zoophthora radicans

1236	Zoophthora radicans	1306	Beauveria bassiana	1378	Metarhizium anisopliae
1237	Zoophthora radicans	1307	Fusarium sp.	1379	Metarhizium anisopliae
1238	Pandora delphacis	1308	Trichothecium roseum	1380	Metarhizium anisopliae
1239	Zoophthora radicans	1309	Beauveria bassiana	1382	Metarhizium anisopliae
1240	Furia americana	1310	Fusarium sp.	1383	Metarhizium anisopliae var. majus
1241	Erynia sp.	1311	Beauveria bassiana	1384	Lagenidium giganteum
1242	Furia americana	1312	Beauveria bassiana	1386	Metarhizium anisopliae
1243	Hirsutella citriformis	1313	Beauveria bassiana	1387	Metarhizium anisopliae
1244	Hirsutella citriformis	1314	Beauveria bassiana	1388	Metarhizium anisopliae
1245	Hirsutella citriformis	1315	Beauveria bassiana	1389	Beauveria bassiana
1246	Hirsutella citriformis	1316	Beauveria bassiana	1390	Entomophaga maimaiga
1247	Hirsutella citriformis	1317	Beauveria bassiana	1391	Entomophaga maimaiga
1248	Hirsutella citriformis	1318	Beauveria bassiana	1392	Entomophaga maimaiga
1249	Hirsutella citriformis	1319	Beauveria bassiana	1393	Entomophaga asiatica
1250	Hirsutella citriformis	1320	Beauveria bassiana	1394	Beauveria bassiana
1251	Hirsutella citriformis	1321	Beauveria bassiana	1395	Beauveria bassiana
1252	Hirsutella citriformis	1322	Beauveria bassiana	1396	Beauveria bassiana
1253	Hirsutella citriformis	1323	Beauveria bassiana	1397	Beauveria bassiana
1254	Hirsutella citriformis	1324	Beauveria bassiana	1398	Beauveria bassiana
1255	Hirsutella citriformis	1325	Beauveria bassiana	1399	Beauveria bassiana
1256	Hirsutella citriformis	1326	Beauveria bassiana	1400	Entomophaga maimaiga
1257	Hirsutella citriformis	1327	Beauveria sp.	1401	Verticillium sp.
1258	Hirsutella citriformis	1328	Verticillium lecanii	1402	Verticillium sp.
1259	Hirsutella citriformis	1329	Aphanocladium album	1403	Verticillium sp.
1260	Culicinomyces clavisporus	1330	Verticillium lecanii	1404	Beauveria bassiana
1261	Zoophthora radicans	1331	Fusarium lateritium	1405	Beauveria bassiana
1262	Zoophthora radicans	1332	Verticillium lecanii	1406	Beauveria bassiana
1263	Zoophthora radicans	1333	Verticillium lecanii	1407	Beauveria bassiana
1264	Pandora delphacis	1334	Verticillium lecanii	1408	Beauveria bassiana
1265	Pandora delphacis	1335	Verticillium lecanii	1409	Beauveria bassiana
1266	Erynia sp.	1336	Zoophthora radicans	1410	Beauveria bassiana
1267	Erynia sp.	1337	Zoophthora radicans	1411	Beauveria bassiana
1268	Pandora delphacis	1338	Erynia sp.	1412	Beauveria bassiana
1269	Beauveria bassiana	1339	Furia ithacensis	1413	Beauveria bassiana
1270	Beauveria bassiana	1340	Furia ithacensis	1414	Beauveria bassiana
1271	Metarhizium flavoviride var. minus	1341	Zoophthora radicans	1415	Unidentified
1272	Metarhizium flavoviride var. minus	1342	Zoophthora radicans	1416	Fusarium lateritium
1273	Metarhizium flavoviride var. minus	1343	Zoophthora radicans	1417	Unidentified
1274	Metarhizium flavoviride var. minus	1344	Zoophthora radicans	1419	Unidentified
1275	Metarhizium flavoviride var. minus	1345	Zoophthora radicans	1420	Unidentified
1276	Metarhizium flavoviride var. minus	1346	Zoophthora radicans	1421	Unidentified
1277	Metarhizium flavoviride var. minus	1347	Basidiobolus haptospora	1422	Pandora dipterigena
1278	Metarhizium anisopliae	1348	Paecilomyces farinosus	1423	Unidentified
1279	Metarhizium flavoviride var. minus	1349	Paecilomyces farinosus	1424	Polycephalomyces formosus
1280	Metarhizium anisopliae	1350	Zoophthora radicans	1425	Tritirachium isariae
1281	Metarhizium anisopliae	1351	Verticillium lecanii	1426	Conidiobolus sp.
1282	Metarhizium anisopliae	1352	Verticillium lecanii	1427	Batkoia major
1283	Metarhizium flavoviride var. minus	1353	Sterile mycelium	1428	Zoophthora radicans
1284	Metarhizium anisopliae	1354	Paecilomyces farinosus	1431	Beauveria brongniartii
1285	Metarhizium anisopliae	1355	Paecilomyces farinosus	1432	Metarhizium anisopliae
1286	Metarhizium anisopliae	1356	Unidentified	1435	Metarhizium anisopliae
1287	Metarhizium flavoviride var. minus	1357	Verticillium lecanii	1436	Hirsutella citriformis
1288	Metarhizium flavoviride var. minus	1358	Paecilomyces farinosus	1439	Erynia conica
1289	Metarhizium flavoviride var. minus	1359	Beauveria bassiana	1440	Erynia rhizospora
1290	Metarhizium anisopliae	1360	Beauveria brongniartii	1441	Erynia rhizospora
1291	Metarhizium flavoviride var. minus	1361	Trichoderma sp.	1442	Erynia rhizospora
1292	Metarhizium flavoviride var. minus	1362	Hirsutella nr. haptosporus	1443	Erynia rhizospora
1293	Metarhizium flavoviride var. minus	1363	Hirsutella nr. haptosporus	1444	Conidiobolus sp.
1294	Metarhizium flavoviride var. minus	1364	Hirsutella nr. haptosporus	1445	Conidiobolus sp.
1295	Metarhizium flavoviride var. minus	1365	Verticillium nr. cephalosporium	1446	Hirsutella citriformis
1296	Metarhizium flavoviride var. minus	1366	Beauveria brongniartii	1448	Metarhizium anisopliae var. anisopliae
1297	Metarhizium flavoviride var. minus	1367	Verticillium lecanii	1449	Metarhizium anisopliae var. anisopliae
1298	Metarhizium anisopliae	1369	Hirsutella radiata	1450	Beauveria bassiana
1299	Metarhizium anisopliae	1371	Fusarium oxysporum	1453	Beauveria bassiana
1300	Metarhizium anisopliae	1372	Acremonium furcatum	1454	Beauveria bassiana
1301	Metarhizium flavoviride var. minus	1373	Metarhizium anisopliae	1455	Beauveria bassiana
1302	Metarhizium flavoviride var. minus	1374	Metarhizium anisopliae	1456	Beauveria bassiana
1303	Metarhizium flavoviride var. minus	1375	Metarhizium anisopliae	1457	Beauveria bassiana
1304	Metarhizium anisopliae	1376	Metarhizium anisopliae		
1305	Metarhizium flavoviride var. minus	1377	Metarhizium anisopliae		

1458	<i>Beauveria bassiana</i>	1530	<i>Paecilomyces fumosoroseus</i>	1604	<i>Pandora neoaphidis</i>
1459	<i>Beauveria bassiana</i>	1531	<i>Beauveria bassiana</i>	1605	<i>Pandora neoaphidis</i>
1460	<i>Beauveria bassiana</i>	1532	<i>Paecilomyces fumosoroseus</i>	1606	<i>Pandora neoaphidis</i>
1461	<i>Beauveria bassiana</i>	1533	<i>Beauveria bassiana</i>	1607	<i>Pandora neoaphidis</i>
1462	<i>Beauveria bassiana</i>	1534	<i>Beauveria bassiana</i>	1609	<i>Pandora neoaphidis</i>
1463	<i>Beauveria bassiana</i>	1535	<i>Beauveria bassiana</i>	1610	<i>Pandora neoaphidis</i>
1464	<i>Beauveria bassiana</i>	1536	<i>Beauveria bassiana</i>	1611	<i>Pandora neoaphidis</i>
1465	<i>Beauveria bassiana</i>	1537	<i>Beauveria bassiana</i>	1612	<i>Pandora neoaphidis</i>
1466	<i>Beauveria bassiana</i>	1538	<i>Beauveria bassiana</i>	1613	<i>Pandora neoaphidis</i>
1467	<i>Beauveria bassiana</i>	1539	<i>Beauveria bassiana</i>	1615	<i>Pandora neoaphidis</i>
1468	<i>Beauveria bassiana</i>	1540	<i>Beauveria bassiana</i>	1616	<i>Pandora neoaphidis</i>
1469	<i>Beauveria bassiana</i>	1541	<i>Zoophthora radicans</i>	1617	<i>Pandora neoaphidis</i>
1470	<i>Beauveria bassiana</i>	1542	<i>Zoophthora radicans</i>	1618	<i>Pandora neoaphidis</i>
1471	<i>Beauveria bassiana</i>	1543	<i>Zoophthora radicans</i>	1619	<i>Beauveria bassiana</i>
1472	<i>Beauveria bassiana</i>	1544	<i>Zoophthora radicans</i>	1620	<i>Beauveria bassiana</i>
1473	<i>Beauveria bassiana</i>	1545	<i>Metarhizium anisopliae</i>	1621	<i>Beauveria bassiana</i>
1474	<i>Beauveria bassiana</i>	1546	<i>Metarhizium flavoviride</i> var. <i>minus</i>	1622	<i>Beauveria bassiana</i>
1475	<i>Beauveria bassiana</i>	1547	<i>Metarhizium flavoviride</i> var. <i>minus</i>	1623	<i>Beauveria bassiana</i>
1476	<i>Beauveria bassiana</i>	1548	<i>Metarhizium anisopliae</i>	1624	<i>Beauveria bassiana</i>
1477	<i>Conidiobolus</i> sp.	1549	<i>Hirsutella citriformis</i>	1625	<i>Hirsutella</i> sp.
1478	<i>Beauveria bassiana</i>	1550	<i>Hirsutella citriformis</i>	1626	<i>Paecilomyces fumosoroseus</i>
1479	<i>Beauveria bassiana</i>	1551	<i>Hirsutella</i> sp.	1627	<i>Beauveria bassiana</i>
1480	<i>Beauveria bassiana</i>	1552	<i>Paecilomyces lilacinus</i>	1628	<i>Beauveria bassiana</i>
1483	<i>Beauveria bassiana</i>	1553	<i>Beauveria bassiana</i>	1629	<i>Beauveria bassiana</i>
1484	<i>Beauveria bassiana</i>	1554	<i>Beauveria bassiana</i>	1630	<i>Beauveria bassiana</i>
1485	<i>Conidiobolus</i> sp.	1555	<i>Beauveria bassiana</i>	1634	Unidentified
1486	<i>Conidiobolus</i> sp.	1556	<i>Beauveria bassiana</i>	1635	<i>Beauveria bassiana</i>
1487	<i>Conidiobolus</i> sp.	1558	<i>Beauveria bassiana</i>	1636	<i>Beauveria bassiana</i>
1488	<i>Conidiobolus</i> sp.	1559	<i>Beauveria bassiana</i>	1637	<i>Beauveria bassiana</i>
1489	<i>Metarhizium anisopliae</i>	1560	<i>Beauveria bassiana</i>	1638	<i>Beauveria bassiana</i>
1490	<i>Metarhizium anisopliae</i>	1561	<i>Beauveria bassiana</i>	1639	<i>Trichothecium roseum</i>
1491	<i>Beauveria bassiana</i>	1562	<i>Beauveria bassiana</i>	1640	<i>Beauveria bassiana</i>
1492	<i>Zoophthora radicans</i>	1563	<i>Beauveria bassiana</i>	1641	<i>Fusarium</i> sp.
1493	<i>Zoophthora radicans</i>	1564	<i>Beauveria bassiana</i>	1642	<i>Trichothecium roseum</i>
1494	<i>Zoophthora radicans</i>	1565	<i>Beauveria bassiana</i>	1643	<i>Beauveria bassiana</i>
1495	<i>Zoophthora radicans</i>	1566	<i>Beauveria bassiana</i>	1644	<i>Paecilomyces fumosoroseus</i>
1496	<i>Zoophthora radicans</i>	1567	<i>Beauveria bassiana</i>	1645	<i>Paecilomyces fumosoroseus</i>
1497	<i>Zoophthora radicans</i>	1568	<i>Paecilomyces fumosoroseus</i>	1646	<i>Paecilomyces fumosoroseus</i>
1498	<i>Zoophthora radicans</i>	1569	<i>Paecilomyces fumosoroseus</i>	1647	<i>Beauveria bassiana</i>
1499	<i>Zoophthora radicans</i>	1570	<i>Pandora neoaphidis</i>	1648	<i>Beauveria bassiana</i>
1500	<i>Zoophthora radicans</i>	1572	<i>Conidiobolus coronatus</i>	1649	<i>Beauveria bassiana</i>
1501	<i>Zoophthora radicans</i>	1573	<i>Conidiobolus coronatus</i>	1650	<i>Beauveria bassiana</i>
1502	<i>Zoophthora radicans</i>	1574	<i>Conidiobolus coronatus</i>	1651	<i>Beauveria bassiana</i>
1503	<i>Zoophthora radicans</i>	1575	<i>Conidiobolus coronatus</i>	1652	<i>Beauveria bassiana</i>
1504	<i>Zoophthora radicans</i>	1576	<i>Paecilomyces fumosoroseus</i>	1653	<i>Beauveria bassiana</i>
1505	<i>Verticillium lecanii</i>	1577	<i>Paecilomyces fumosoroseus</i>	1654	<i>Beauveria bassiana</i>
1506	<i>Paecilomyces fumosoroseus</i>	1578	<i>Paecilomyces fumosoroseus</i>	1655	<i>Entomophaga aulicae</i>
1507	<i>Paecilomyces farinosus</i>	1579	<i>Paecilomyces fumosoroseus</i>	1656	<i>Entomophaga aulicae</i>
1508	<i>Paecilomyces farinosus</i>	1580	<i>Tolypocladium cylindrosporum</i>	1657	<i>Entomophaga aulicae</i>
1509	<i>Beauveria bassiana</i>	1581	<i>Zoophthora radicans</i>	1658	<i>Entomophaga maimaiga</i>
1510	<i>Beauveria bassiana</i>	1582	<i>Zoophthora radicans</i>	1659	<i>Entomophaga asiatica</i>
1511	<i>Beauveria bassiana</i>	1583	<i>Zoophthora radicans</i>	1660	<i>Batkoia apiculata</i>
1512	<i>Beauveria bassiana</i>	1584	<i>Zoophthora radicans</i>	1661	<i>Batkoia apiculata</i>
1513	<i>Beauveria bassiana</i>	1585	<i>Zoophthora radicans</i>	1662	<i>Conidiobolus pseudapiculatus</i>
1514	<i>Beauveria bassiana</i>	1586	<i>Zoophthora radicans</i>	1664	<i>Conidiobolus pseudapiculatus</i>
1515	<i>Beauveria bassiana</i>	1587	<i>Zoophthora radicans</i>	1665	<i>Conidiobolus pseudapiculatus</i>
1516	<i>Beauveria bassiana</i>	1588	<i>Zoophthora radicans</i>	1666	<i>Erynia</i> sp.
1517	<i>Beauveria bassiana</i>	1589	<i>Zoophthora radicans</i>	1668	<i>Hirsutella</i> sp.
1518	<i>Beauveria bassiana</i>	1590	<i>Zoophthora radicans</i>	1669	<i>Gibellula</i> sp.
1519	<i>Beauveria bassiana</i>	1591	<i>Zoophthora radicans</i>	1670	<i>Nomuraea rileyi</i>
1520	<i>Beauveria bassiana</i>	1593	<i>Zoophthora radicans</i>	1671	<i>Nomuraea rileyi</i>
1521	<i>Beauveria bassiana</i>	1594	<i>Zoophthora radicans</i>	1672	<i>Conidiobolus</i> sp.
1522	<i>Fusarium</i> sp.	1595	<i>Zoophthora radicans</i>	1674	<i>Zoophthora radicans</i>
1523	<i>Beauveria bassiana</i>	1596	<i>Pandora neoaphidis</i>	1675	<i>Zoophthora radicans</i>
1524	<i>Beauveria bassiana</i>	1597	<i>Pandora neoaphidis</i>	1676	<i>Beauveria brongniartii</i>
1525	<i>Beauveria bassiana</i>	1598	<i>Pandora neoaphidis</i>	1677	<i>Beauveria bassiana</i>
1526	<i>Beauveria bassiana</i>	1600	<i>Pandora neoaphidis</i>	1678	<i>Beauveria bassiana</i>
1527	<i>Beauveria bassiana</i>	1601	<i>Pandora neoaphidis</i>	1679	<i>Beauveria bassiana</i>
1528	<i>Beauveria bassiana</i>	1602	<i>Pandora neoaphidis</i>	1680	<i>Beauveria brongniartii</i>
1529	<i>Beauveria bassiana</i>	1603	<i>Pandora neoaphidis</i>	1681	<i>Beauveria</i> sp.

1682	Beauveria amorpha	1761	Nomuraea rileyi	1831	Beauveria bassiana
1683	Beauveria bassiana	1762	Nomuraea rileyi	1832	Beauveria bassiana
1684	Paecilomyces andoi	1763	Metarhizium flavoviride var. minus	1833	Beauveria bassiana
1685	Beauveria sp.	1764	Metarhizium flavoviride var. minus	1834	Beauveria bassiana
1686	Paecilomyces flavovirescens	1765	Metarhizium flavoviride var. minus	1835	Beauveria sp.
1689	Beauveria bassiana	1766	Metarhizium flavoviride var. minus	1836	Beauveria bassiana
1690	Beauveria bassiana	1767	Metarhizium flavoviride var. minus	1837	Hirsutella citriformis
1691	Beauveria bassiana	1768	Metarhizium flavoviride var. minus	1838	Beauveria bassiana
1692	Beauveria bassiana	1769	Metarhizium flavoviride var. minus	1839	Beauveria bassiana
1693	Unidentified	1770	Metarhizium flavoviride var. minus	1840	Metarhizium album
1694	Unidentified	1771	Metarhizium flavoviride var. minus	1841	Zoophthora radicans
1695	Pandora neoaphidis	1772	Metarhizium flavoviride var. minus	1842	Beauveria bassiana
1696	Pandora neoaphidis	1773	Metarhizium flavoviride var. minus	1843	Beauveria bassiana
1699	Zoophthora radicans	1774	Verticillium lecanii	1844	Beauveria bassiana
1703	Unidentified	1775	Beauveria bassiana	1845	Beauveria bassiana
1704	Beauveria bassiana	1776	Beauveria bassiana	1846	Beauveria bassiana
1705	Beauveria bassiana	1777	Beauveria bassiana	1848	Beauveria bassiana
1706	Beauveria bassiana	1778	Beauveria bassiana	1849	Beauveria bassiana
1707	Beauveria bassiana	1779	Beauveria bassiana	1850	Beauveria bassiana
1708	Beauveria bassiana	1780	Beauveria bassiana	1851	Paecilomyces farinosus
1709	Beauveria bassiana	1781	Beauveria bassiana	1852	Beauveria bassiana
1710	Beauveria bassiana	1782	Beauveria bassiana	1853	Beauveria bassiana
1711	Beauveria bassiana	1783	Beauveria bassiana	1854	Beauveria bassiana
1712	Beauveria bassiana	1784	Pandora neoaphidis	1855	Beauveria bassiana
1713	Beauveria bassiana	1785	Pandora neoaphidis	1856	Sorosporella uvella
1714	Sorosporella uvella	1786	Pandora neoaphidis	1857	Candida sp.
1715	Pandora blunckii	1787	Verticillium lecanii	1858	Metarhizium anisopliae var. majus
1716	Pandora blunckii	1788	Beauveria bassiana	1859	Metarhizium anisopliae var. majus
1717	Pandora blunckii	1789	Beauveria bassiana	1860	Entomophthora chromaphidis
1718	Pandora blunckii	1790	Beauveria bassiana	1862	Entomophthora chromaphidis
1719	Zoophthora radicans	1791	Beauveria bassiana	1863	Entomophthora chromaphidis
1720	Pandora dipterigena	1792	Beauveria bassiana	1864	Beauveria bassiana
1721	Beauveria bassiana	1793	Beauveria bassiana	1865	Beauveria bassiana
1722	Beauveria bassiana	1794	Beauveria bassiana	1866	Beauveria bassiana
1723	Beauveria bassiana	1795	Beauveria bassiana	1867	Paecilomyces fumosoroseus
1724	Metarhizium anisopliae	1796	Beauveria bassiana	1868	Paecilomyces fumosoroseus
1725	Metarhizium anisopliae	1797	Beauveria bassiana	1870	Erynia sciarae
1726	Metarhizium anisopliae	1798	Beauveria bassiana	1871	Beauveria brongniartii
1727	Metarhizium anisopliae	1799	Beauveria bassiana	1872	Beauveria brongniartii
1728	Metarhizium anisopliae	1800	Beauveria bassiana	1873	Beauveria brongniartii
1729	Metarhizium anisopliae	1801	Beauveria bassiana	1874	Beauveria brongniartii
1730	Pandora delphacis	1802	Beauveria bassiana	1875	Beauveria brongniartii
1731	Pandora delphacis	1803	Beauveria bassiana	1876	Conidiobolus coronatus
1732	Gibellula pulchra	1804	Beauveria bassiana	1877	Candida sp.
1733	Conidiobolus thromboides	1805	Beauveria bassiana	1878	Metarhizium anisopliae
1734	Conidiobolus thromboides	1806	Beauveria bassiana	1879	Nomuraea rileyi
1735	Conidiobolus thromboides	1807	Beauveria bassiana	1880	Cordyceps heteropoda
1736	Conidiobolus coronatus	1808	Beauveria bassiana	1881	Entomophaga sp.
1737	Conidiobolus coronatus	1809	Beauveria bassiana	1882	Metarhizium anisopliae var. anisopliae
1738	Conidiobolus coronatus	1810	Beauveria bassiana	1883	Metarhizium anisopliae var. anisopliae
1739	Zoophthora anglica	1811	Beauveria bassiana	1884	Conidiobolus nr. coronatus
1741	Conidiobolus obscurus	1812	Beauveria bassiana	1885	Metarhizium anisopliae var. anisopliae
1742	Conidiobolus nr. coronatus	1813	Beauveria bassiana	1886	Beauveria bassiana
1743	Conidiobolus nr. coronatus	1814	Beauveria bassiana	1887	Pandora dipterigena
1744	Metarhizium anisopliae	1815	Beauveria bassiana	1888	Entomophaga australiensis
1745	Metarhizium anisopliae	1816	Beauveria bassiana	1889	Beauveria bassiana
1746	Entomophaga maimaiga	1817	Beauveria bassiana	1890	Metarhizium anisopliae
1747	Beauveria bassiana	1818	Beauveria bassiana	1891	Metarhizium anisopliae
1748	Beauveria bassiana	1819	Beauveria bassiana	1892	Metarhizium anisopliae
1749	Beauveria bassiana	1820	Beauveria bassiana	1893	Nomuraea rileyi
1750	Beauveria bassiana	1821	Beauveria bassiana	1894	Metarhizium anisopliae var. anisopliae
1751	Entomophaga aulicae	1822	Beauveria bassiana	1895	Metarhizium anisopliae
1752	Erynia conica	1823	Metarhizium anisopliae	1896	Metarhizium anisopliae
1753	Erynia conica	1824	Pandora neoaphidis	1897	Metarhizium anisopliae
1754	Erynia curvispora	1825	Pandora neoaphidis	1898	Metarhizium anisopliae
1756	Nomuraea rileyi	1826	Pandora neoaphidis	1899	Metarhizium anisopliae
1757	Nomuraea rileyi	1827	Pandora neoaphidis		
1758	Nomuraea rileyi	1828	Fusarium sp.		
1759	Nomuraea rileyi	1829	Beauveria brongniartii		
1760	Nomuraea rileyi	1830	Beauveria brongniartii		

1900	Metarhizium anisopliae	1971	Beauveria bassiana	2045	Torrubiella homopterorum
1901	Metarhizium anisopliae	1972	Nomuraea rileyi	2046	Pandora delphacis
1902	Metarhizium anisopliae	1973	Beauveria bassiana	2047	Pandora delphacis
1903	Metarhizium anisopliae	1974	Beauveria bassiana	2048	Basidiobolus sp.
1904	Nomuraea atypicola	1975	Beauveria bassiana	2049	Basidiobolus sp.
1905	Verticillium nr. aranearum	1976	Beauveria bassiana	2050	Basidiobolus sp.
1907	Calcarisporium ovalisporum	1977	Beauveria bassiana	2051	Basidiobolus sp.
1908	Hirsutella citriformis	1978	Beauveria bassiana	2052	Basidiobolus sp.
1909	Gibellula clavulifera var. alba	1979	Beauveria bassiana	2053	Fusarium semitectum
1910	Metarhizium anisopliae	1980	Beauveria bassiana	2054	Beauveria bassiana
1911	Metarhizium anisopliae	1981	Pandora neoaphidis	2055	Trichothecium roseum
1912	Metarhizium anisopliae	1982	Beauveria bassiana	2056	Penicillium thomii
1913	Hirsutella citriformis	1984	Beauveria bassiana	2057	Paecilomyces farinosus
1914	Metarhizium anisopliae var. majus	1985	Pandora neoaphidis	2058	Filobasidiella arachnophila
1915	Torrubiella raticaudata	1986	Pandora neoaphidis	2059	Fusarium merismoides
1916	Torrubiella raticaudata	1987	Pandora neoaphidis	2060	Fusarium avenaceum
1917	Hirsutella citriformis	1988	Beauveria bassiana	2061	Mortierella hyalina
1918	Hirsutella citriformis	1989	Metarhizium anisopliae var. anisopliae	2062	Mortierella clausenii
1919	Hirsutella citriformis	1990	Entomophaga aulicae	2063	Mortierella sp.
1920	Entomophaga australiensis	1991	Entomophaga aulicae	2064	Verticillium coccosporum
1921	Zoophthora radicans	1992	Entomophaga aulicae	2065	Verticillium fungicola
1922	Unidentified	1993	Entomophaga aulicae	2066	Verticillium lecanii
1923	Pandora dipterigena	1994	Entomophaga aulicae	2067	Acremonium berkeleyanum
1924	Candida sp.	1995	Entomophaga aulicae	2069	Humicola sp.
1925	Candida sp.	1997	Entomophaga aulicae	2070	Acrodontium crateriforme
1926	Candida sp.	1998	Entomophaga aulicae	2071	Phoma cava
1928	Zoophthora radicans	1999	Entomophaga aulicae	2072	Phialophora malorum
1929	Zoophthora radicans	2000	Entomophaga aulicae	2073	Sterile mycelium
1930	Zoophthora radicans	2002	Hymenostilbe verrucosa	2074	Fusarium moniliforme
1931	Zoophthora radicans	2003	Lagenidium caudatum	2075	Beauveria bassiana
1932	Zoophthora radicans	2004	Leptolegnia sp.	2076	Metarhizium anisopliae
1933	Zoophthora radicans	2005	Aphanomyces sp.	2077	Metarhizium anisopliae
1934	Zoophthora radicans	2006	Hirsutella rhossiliensis	2078	Paecilomyces amoenoroseus
1935	Zoophthora radicans	2007	Hirsutella rhossiliensis	2079	Beauveria bassiana
1936	Pandora delphacis	2008	Hirsutella rhossiliensis	2080	Metarhizium anisopliae var. anisopliae
1937	Zoophthora radicans	2009	Verticillium lecanii	2081	Metarhizium album
1938	Zoophthora radicans	2010	Beauveria bassiana	2082	Metarhizium album
1939	Paecilomyces farinosus	2011	Beauveria bassiana	2083	Entomophaga sp.
1940	Crypticola clavulifera	2012	Hirsutella thompsonii	2085	Pandora neoaphidis
1941	Metarhizium album	2013	Nomuraea rileyi	2086	Pandora neoaphidis
1942	Metarhizium album	2014	Entomophthora muscae	2087	Entomophthora muscae
1943	Metarhizium album	2015	Catenaria anguillulae	2088	Entomophthora muscae
1945	Metarhizium flavoviride var. minus	2016	Pandora neoaphidis	2089	Entomophthora muscae
1946	Metarhizium anisopliae var. majus	2017	Pandora neoaphidis	2091	Pandora delphacis
1947	Hirsutella thompsonii	2018	Pandora neoaphidis	2092	Pandora delphacis
1948	Culicinomyces bisporalis	2019	Pandora neoaphidis	2093	Pandora delphacis
1949	Culicinomyces bisporalis	2020	Pandora neoaphidis	2094	Pandora delphacis
1950	Nomuraea rileyi	2022	Unidentified	2095	Pandora delphacis
1951	Paecilomyces lilacinus	2023	Metarhizium flavoviride	2096	Pandora delphacis
1952	Metarhizium anisopliae var. anisopliae	2024	Metarhizium flavoviride	2097	Erynia sp.
1953	Beauveria bassiana	2025	Metarhizium flavoviride	2098	Fusarium coccophilum
1954	Beauveria bassiana	2026	Metarhizium flavoviride	2099	Hirsutella citriformis
1955	Beauveria bassiana	2027	Erynia sp.	2100	Hirsutella citriformis
1956	Beauveria bassiana	2028	Pandora delphacis	2101	Hirsutella citriformis
1957	Paecilomyces farinosus	2030	Beauveria bassiana	2102	Hirsutella citriformis
1958	Metarhizium anisopliae var. anisopliae	2031	Beauveria bassiana	2103	Hirsutella citriformis
1959	Beauveria bassiana	2032	Beauveria bassiana	2105	Metarhizium anisopliae var. anisopliae
1960	Beauveria bassiana	2033	Beauveria bassiana	2106	Metarhizium anisopliae var. anisopliae
1961	Beauveria bassiana	2034	Beauveria bassiana	2107	Metarhizium anisopliae
1962	Beauveria bassiana	2035	Calcarisporium ovalisporum	2108	Pandora neoaphidis
1964	Acremonium roseum	2036	Calcarisporium ovalisporum	2109	Pandora neoaphidis
1966	Beauveria bassiana	2037	Metarhizium flavoviride var. minus	2110	Pandora neoaphidis
1967	Conidiobolus sp.	2038	Metarhizium anisopliae	2111	Pandora neoaphidis
1968	Metarhizium anisopliae var. anisopliae	2039	Metarhizium anisopliae	2112	Pandora neoaphidis
1969	Beauveria bassiana	2040	Beauveria bassiana	2114	Pandora neoaphidis
1970	Metarhizium anisopliae var. anisopliae	2041	Beauveria bassiana	2115	Pandora neoaphidis
		2042	Metarhizium anisopliae	2116	Pandora neoaphidis
		2043	Metarhizium anisopliae		
		2044	Hirsutella strigosa		

2117	Pandora neoaphidis	2181	Paecilomyces lilacinus	2256	Zoophthora radicans
2118	Pandora neoaphidis	2182	Paecilomyces lilacinus	2257	Zoophthora radicans
2119	Pandora neoaphidis	2183	Paecilomyces lilacinus	2258	Zoophthora radicans
2120	Pandora neoaphidis	2184	Paecilomyces lilacinus	2259	Zoophthora radicans
2121	Pandora neoaphidis	2185	Paecilomyces lilacinus	2260	Zoophthora radicans
2122	Pandora neoaphidis	2186	Paecilomyces lilacinus	2261	Zoophthora radicans
2123	Pandora neoaphidis	2187	Hirsutella bogoriensis	2262	Zoophthora radicans
2124	Pandora neoaphidis	2188	Zoophthora phytomii	2263	Entomophthora muscae
2128	Pandora neoaphidis	2191	Beauveria bassiana	2264	Entomophthora muscae
2130	Conidiobolus sp.	2192	Furia americana	2265	Entomophthora muscae
2131	Paecilomyces farinosus	2193	Conidiobolus sp.	2266	Entomophthora muscae
2132	Pandora nr. delphacis	2194	Furia americana	2267	Beauveria bassiana
2133	Metarhizium flavoviride	2196	Zoophthora radicans	2268	Aschersonia aleyrodis
2134	Metarhizium anisopliae var. anisopliae	2197	Hirsutella strigosa	2269	Paecilomyces farinosus
2135	Metarhizium anisopliae var. anisopliae	2198	Paecilomyces fumosoroseus	2270	Beauveria bassiana
2136	Metarhizium anisopliae var. anisopliae	2201	Nomuraea rileyi	2271	Beauveria bassiana
2137	Metarhizium anisopliae var. anisopliae	2202	Nomuraea rileyi	2273	Entomophaga conglomerata
2138	Metarhizium anisopliae var. anisopliae	2203	Nomuraea rileyi	2274	Erynia conica
2139	Metarhizium anisopliae var. anisopliae	2204	Nomuraea rileyi	2275	Erynia conica
2140	Metarhizium anisopliae var. anisopliae	2205	Nomuraea rileyi	2276	Erynia rhizospora
2141	Fusarium subglutinans	2206	Nomuraea rileyi	2277	Erynia conica
2142	Fusarium subglutinans	2207	Nomuraea rileyi	2279	Erynia sp.
2143	Fusarium subglutinans	2208	Hirsutella sp.	2280	Pandora neoaphidis
2144	Fusarium subglutinans	2209	Hirsutella sp.	2281	Zoophthora phalloides
2145	Fusarium subglutinans	2210	Metarhizium sp.	2282	Zoophthora radicans
2146	Pandora nr. delphacis	2211	Metarhizium anisopliae	2283	Zoophthora radicans
2147	Conidiobolus sp.	2212	Metarhizium anisopliae	2284	Zoophthora radicans
2148	Conidiobolus sp.	2213	Metarhizium anisopliae	2285	Zoophthora radicans
2149	Verticillium lecanii	2214	Metarhizium anisopliae	2286	Zoophthora radicans
2150	Verticillium lecanii	2215	Paecilomyces amoenoroseus	2287	Zoophthora radicans
2151	Metarhizium anisopliae var. majus	2216	Paecilomyces fumosoroseus	2288	Zoophthora radicans
2152	Paecilomyces guaensis	2217	Paecilomyces fumosoroseus	2289	Zoophthora radicans
2153	Metarhizium anisopliae	2218	Verticillium chlamydosporium	2292	Erynia sp.
2154	Aschersonia aleyrodis	2219	Paecilomyces fumosoroseus	2293	Pandora neoaphidis
2155	Paecilomyces farinosus	2220	Paecilomyces fumosoroseus	2294	Erynia sp.
2156	Metarhizium anisopliae var. anisopliae	2221	Paecilomyces fumosoroseus	2297	Beauveria bassiana
2157	Aspergillus flavus	2223	Metarhizium anisopliae var. anisopliae	2298	Pandora neoaphidis
2158	Aspergillus flavus	2224	Metarhizium sp.	2299	Fusarium semitectum
2159	Aspergillus flavus	2225	Metarhizium sp.	2300	Fusarium semitectum
2160	Paecilomyces viridis	2226	Hirsutella haptosporus	2301	Fusarium subglutinans
2161	Aphanocladium album	2227	Hirsutella subulata	2302	Fusarium sp.
2162	Metarhizium anisopliae var. anisopliae	2228	Hirsutella nr. haptosporus	2303	Fusarium sp.
2163	Metarhizium anisopliae var. anisopliae	2230	Metarhizium anisopliae var. anisopliae	2304	Fusarium lateritium
2164	Beauveria sp.	2231	Metarhizium anisopliae var. anisopliae	2311	Fusarium solani
2165	Metarhizium anisopliae var. anisopliae	2232	Fusarium sp.	2312	Fusarium solani
2166	Metarhizium anisopliae var. anisopliae	2233	Paecilomyces marquandii	2313	Fusarium solani
2167	Metarhizium anisopliae var. anisopliae	2234	Verticillium psalliotiae	2314	Fusarium solani
2169	Scopulariopsis sp.	2235	Verticillium insectorum	2316	Fusarium nygamai
2170	Verticillium indicum	2236	Beauveria bassiana	2317	Entomophthora muscae
2172	Entomophthora muscae	2237	Schizangiella sp.	2318	Beauveria bassiana
2173	Aspergillus nr. parasiticus	2240	Zoophthora radicans	2319	Beauveria bassiana
2174	Nomuraea rileyi	2241	Zoophthora radicans	2320	Beauveria bassiana
2175	Paecilomyces farinosus	2242	Zoophthora radicans	2321	Beauveria bassiana
2176	Metarhizium album	2243	Zoophthora radicans	2322	Beauveria bassiana
2177	Metarhizium album	2244	Zoophthora radicans	2323	Verticillium sp.
2178	Metarhizium album	2245	Zoophthora radicans	2324	Verticillium sp.
2179	Metarhizium album	2246	Zoophthora radicans	2325	Verticillium sp.
		2247	Paecilomyces fumosoroseus	2326	Verticillium sp.
		2248	Beauveria bassiana	2327	Scopulariopsis sp.
		2249	Beauveria bassiana	2328	Scopulariopsis sp.
		2250	Beauveria bassiana	2329	Verticillium sp.
		2251	Beauveria amorphia	2330	Beauveria bassiana
		2252	Fusarium sp.	2332	Verticillium sp.
		2253	Beauveria bassiana	2333	Fusarium sp.
		2254	Beauveria bassiana	2334	Verticillium lecanii
		2255	Scopulariopsis sp.	2336	Beauveria bassiana

2341	Metarhizium anisopliae	2452	Coemansia sp.	2523	Zoophthora radicans
2342	Metarhizium anisopliae	2454	Beauveria bassiana	2525	Erynia sp.
2343	Metarhizium anisopliae	2455	Beauveria bassiana	2526	Culicinomyces clavisporus
2344	Paecilomyces farinosus	2456	Paecilomyces viridis	2527	Culicinomyces clavisporus
2345	Nomuraea rileyi	2457	Beauveria bassiana	2528	Unidentified
2346	Hirsutella citriformis	2458	Beauveria bassiana	2529	Lagenidium giganteum
2347	Hirsutella citriformis	2459	Hirsutella thompsonii	2530	Lagenidium giganteum
2348	Hirsutella repens	2460	Verticillium lecanii	2531	Lagenidium giganteum
2350	Paecilomyces sp.	2461	Beauveria bassiana	2532	Lagenidium giganteum
2351	Aschersonia inasperata	2462	Beauveria bassiana	2533	Lagenidium giganteum
2352	Hirsutella guyana	2463	Beauveria bassiana	2535	Entomophaga sp.
2353	Metarhizium anisopliae	2464	Hirsutella thompsonii	2536	Erynia sp.
2354	Paecilomyces sp.	2465	Nomuraea rileyi	2537	Erynia sp.
2355	Paecilomyces farinosus	2466	Nomuraea rileyi	2538	Erynia sp.
2356	Aschersonia inasperata	2467	Nomuraea anemonoides	2539	Erynia sp.
2357	Aschersonia inasperata	2468	Drechmeria coniospora	2540	Entomophthora muscae
2358	Aschersonia inasperata	2469	Metarhizium anisopliae var. anisopliae	2541	Entomophthora muscae
2359	Hirsutella repens	2471	Culicinomyces clavisporus	2542	Entomophthora muscae
2360	Beauveria bassiana	2472	Culicinomyces clavisporus	2543	Entomophthora muscae
2362	Entomophaga aulicae	2473	Culicinomyces clavisporus	2544	Beauveria bassiana
2363	Entomophaga aulicae	2474	Culicinomyces clavisporus	2545	Beauveria bassiana
2365	Entomophaga aulicae	2475	Culicinomyces clavisporus	2546	Paecilomyces sp.
2366	Entomophaga aulicae	2476	Culicinomyces clavisporus	2547	Metarhizium anisopliae
2367	Entomophaga aulicae	2477	Culicinomyces clavisporus	2548	Metarhizium anisopliae
2368	Entomophaga aulicae	2478	Culicinomyces clavisporus	2549	Zoophthora radicans
2369	Entomophaga aulicae	2479	Culicinomyces clavisporus	2550	Zoophthora radicans
2370	Entomophaga maimaiga	2480	Culicinomyces clavisporus	2551	Zoophthora radicans
2371	Entomophaga maimaiga	2481	Culicinomyces clavisporus	2552	Zoophthora radicans
2372	Entomophaga aulicae	2482	Culicinomyces clavisporus	2553	Erynia sp.
2373	Entomophaga aulicae	2483	Verticillium balanoides	2554	Zoophthora radicans
2374	Entomophaga aulicae	2484	Beauveria bassiana	2555	Unidentified
2376	Paecilomyces fumosoroseus	2485	Beauveria bassiana	2556	Metarhizium sp.
2378	Paecilomyces sp.	2486	Beauveria bassiana	2557	Beauveria bassiana
2387	Hirsutella guyana	2487	Beauveria bassiana	2558	Zoophthora radicans
2394	Hirsutella repens	2488	Paecilomyces tenuipes	2559	Beauveria bassiana
2395	Nomuraea rileyi	2489	Paecilomyces tenuipes	2560	Metarhizium anisopliae
2396	Hirsutella inasperata	2490	Paecilomyces tenuipes	2561	Metarhizium anisopliae
2397	Aschersonia inasperata	2491	Paecilomyces tenuipes	2562	Leptolegnia chapmanii
2398	Aschersonia inasperata	2492	Nomuraea rileyi	2563	Unidentified
2399	Verticillium cinnamoneum	2493	Conidiobolus pseudapiculatus	2564	Paecilomyces farinosus
2400	Zoophthora radicans	2494	Conidiobolus sp.	2567	Beauveria caledonica
2401	Beauveria brongniartii	2495	Erynia sp.	2568	Fusarium sp.
2402	Beauveria bassiana	2496	Conidiobolus pseudapiculatus	2569	Fusarium sp.
2403	Beauveria bassiana	2497	Conidiobolus pseudapiculatus	2570	Beauveria bassiana
2404	Beauveria bassiana	2498	Conidiobolus sp.	2571	Beauveria bassiana
2405	Erynia conica	2499	Zoophthora radicans	2572	Beauveria bassiana
2406	Pandora dipterigena	2500	Zoophthora radicans	2573	Beauveria bassiana
2407	Erynia rhizospora	2501	Zoophthora radicans	2574	Metarhizium anisopliae
2409	Pandora delphacis	2502	Conidiobolus pseudapiculatus	2575	Metarhizium anisopliae
2410	Zoophthora radicans	2503	Zoophthora radicans	2576	Paecilomyces farinosus
2411	Zoophthora radicans	2504	Conidiobolus obscurus	2577	Paecilomyces farinosus
2412	Beauveria sp.	2505	Zoophthora anglica	2578	Paecilomyces farinosus
2413	Nomuraea sp.	2506	Zoophthora radicans	2579	Beauveria bassiana
2414	Verticillium sp.	2507	Erynia sp.	2580	Beauveria bassiana
2415	Tilachlidium sp.	2509	Beauveria bassiana	2581	Hirsutella sp.
2416	Cordyceps militaris	2510	Metarhizium anisopliae	2583	Pandora neoaphidis
2417	Beauveria bassiana	2511	Beauveria bassiana	2584	Pandora neoaphidis
2418	Fusarium sp.	2512	Beauveria bassiana	2585	Pandora neoaphidis
2420	Hirsutella citriformis	2513	Metarhizium anisopliae	2587	Pandora neoaphidis
2421	Metarhizium anisopliae	2514	Metarhizium anisopliae var. anisopliae	2588	Pandora neoaphidis
2422	Hirsutella citriformis	2515	Beauveria bassiana	2589	Pandora neoaphidis
2423	Hirsutella citriformis	2516	Beauveria bassiana	2591	Pandora neoaphidis
2424	Metarhizium anisopliae var. anisopliae	2517	Metarhizium anisopliae	2592	Pandora neoaphidis
2425	Paecilomyces fumosoroseus	2518	Metarhizium anisopliae	2593	Pandora neoaphidis
2426	Hirsutella citriformis	2519	Beauveria bassiana	2594	Pandora neoaphidis
2427	Beauveria bassiana	2520	Beauveria bassiana	2595	Fusarium sp.
2428	Hirsutella citriformis	2521	Metarhizium anisopliae	2596	Metarhizium sp.
2429	Paecilomyces fumosoroseus	2522	Entomophaga calopteni	2597	Beauveria bassiana
2430	Beauveria bassiana			2598	Hirsutella citriformis
				2599	Hirsutella verticilloides

2600	Zoophthora radicans	2673	Entomophthora muscae	2742	Metarhizium anisopliae var. anisopliae
2601	Zoophthora radicans	2674	Entomophthora muscae	2743	Fusarium sp.
2602	Metarhizium anisopliae	2675	Entomophthora muscae	2744	Paecilomyces fumosoroseus
2603	Metarhizium anisopliae	2676	Beauveria bassiana	2745	Paecilomyces fumosoroseus
2604	Metarhizium anisopliae	2677	Neozygites tetranychi	2746	Unidentified
2605	Metarhizium anisopliae	2678	Entomophthora muscae	2747	Unidentified
2606	Metarhizium anisopliae	2679	Paecilomyces fumosoroseus	2748	Beauveria bassiana
2607	Metarhizium anisopliae	2680	Leptolegnia chapmani	2749	Paecilomyces fumosoroseus
2608	Metarhizium anisopliae	2681	Leptolegnia chapmani	2751	Beniowskia sp.
2609	Metarhizium anisopliae	2682	Leptolegnia chapmani	2752	Unidentified
2610	Metarhizium anisopliae	2683	Ascospaera apis	2754	Pandora neoaphidis
2611	Metarhizium anisopliae	2684	Tolypocladium geodes	2755	Pandora neoaphidis
2612	Metarhizium anisopliae	2685	Beauveria bassiana	2756	Pandora neoaphidis
2613	Paecilomyces sp.	2686	Beauveria bassiana	2757	Pandora neoaphidis
2614	Paecilomyces sp.	2687	Beauveria bassiana	2758	Pandora neoaphidis
2615	Paecilomyces sp.	2688	Beauveria bassiana	2760	Pandora neoaphidis
2616	Paecilomyces sp.	2689	Beauveria bassiana	2761	Pandora neoaphidis
2617	Paecilomyces sp.	2690	Beauveria bassiana	2762	Pandora neoaphidis
2618	Paecilomyces sp.	2691	Beauveria bassiana	2763	Pandora neoaphidis
2619	Beauveria bassiana	2692	Beauveria bassiana	2764	Metarhizium anisopliae
2620	Paecilomyces sp.	2693	Beauveria bassiana	2765	Aspergillus sp.
2621	Beauveria bassiana	2694	Beauveria bassiana	2766	Pandora neoaphidis
2622	Culicinomyces clavisporus	2695	Beauveria bassiana	2767	Pandora neoaphidis
2624	Beauveria bassiana	2696	Zoophthora radicans	2768	Pandora neoaphidis
2625	Beauveria bassiana	2697	Zoophthora radicans	2769	Pandora neoaphidis
2626	Beauveria bassiana	2698	Zoophthora radicans	2771	Conidiobolus sp.
2627	Metarhizium anisopliae	2699	Zoophthora radicans	2772	Conidiobolus sp.
2628	Metarhizium anisopliae	2700	Zoophthora radicans	2773	Pandora neoaphidis
2629	Beauveria bassiana	2701	Zoophthora radicans	2775	Entomophaga maimaiga
2630	Beauveria bassiana	2702	Zoophthora radicans	2776	Fusarium sp.
2631	Beauveria bassiana	2703	Zoophthora radicans	2777	Tolypocladium cylindrosporum
2632	Beauveria bassiana	2704	Zoophthora radicans	2778	Tolypocladium cylindrosporum
2633	Beauveria bassiana	2705	Zoophthora radicans	2779	Entomophaga maimaiga
2634	Metarhizium anisopliae	2706	Zoophthora radicans	2780	Entomophaga maimaiga
2635	Metarhizium anisopliae	2707	Zoophthora radicans	2781	Pandora neoaphidis
2636	Beauveria bassiana	2708	Zoophthora radicans	2782	Pandora neoaphidis
2637	Beauveria bassiana	2709	Zoophthora radicans	2783	Pandora neoaphidis
2638	Beauveria bassiana	2710	Zoophthora radicans	2784	Pandora neoaphidis
2639	Beauveria bassiana	2711	Zoophthora radicans	2785	Beauveria bassiana
2640	Unidentified	2712	Zoophthora radicans	2786	Metarhizium anisopliae
2641	Beauveria amorphia	2713	Zoophthora radicans	2787	Basidiobolus ranarum
2642	Beauveria bassiana	2714	Zoophthora radicans	2788	Hirsutella rhossiliensis
2643	Penicillium sp.	2715	Conidiobolus coronatus	2789	Hirsutella rhossiliensis
2644	Hirsutella sp.	2716	Zoophthora radicans	2790	Hirsutella rhossiliensis
2645	Hirsutella sp.	2717	Zoophthora radicans	2791	Hirsutella rhossiliensis
2646	Hirsutella sp.	2718	Zoophthora radicans	2792	Hirsutella rhossiliensis
2647	Hirsutella sp.	2719	Zoophthora radicans	2793	Hirsutella rhossiliensis
2648	Hirsutella sp.	2720	Zoophthora radicans	2794	Hirsutella rhossiliensis
2649	Hirsutella sp.	2721	Entomophaga praxibuli	2795	Hirsutella sp.
2650	Hirsutella sp.	2722	Beauveria bassiana	2796	Hirsutella sp.
2651	Hirsutella sp.	2723	Beauveria bassiana	2797	Hirsutella sp.
2652	Hirsutella sp.	2724	Paecilomyces farinosus	2798	Hirsutella sp.
2653	Hirsutella sp.	2725	Beauveria bassiana	2799	Hirsutella sp.
2654	Hirsutella sp.	2726	Paecilomyces farinosus	2800	Hirsutella thompsonii
2655	Hirsutella sp.	2727	Beauveria bassiana	2801	Hirsutella sp.
2656	Hirsutella sp.	2728	Beauveria bassiana	2802	Hirsutella sp.
2657	Hirsutella sp.	2729	Beauveria bassiana	2803	Hirsutella sp.
2658	Paecilomyces farinosus	2730	Conidiobolus coronatus	2804	Paecilomyces fumosoroseus
2659	Verticillium lecanii	2731	Conidiobolus firmipilleus	2805	Metarhizium anisopliae
2660	Beauveria brongniartii	2732	Zoophthora radicans	2806	Metarhizium anisopliae
2661	Entomophaga maimaiga	2733	Paecilomyces fumosoroseus	2807	Paecilomyces farinosus
2663	Erynia sp.	2734	Paecilomyces farinosus	2808	Metarhizium anisopliae
2664	Erynia sp.	2735	Metarhizium anisopliae	2809	Metarhizium anisopliae
2665	Entomophthora muscae	2736	Fusarium sp.	2810	Verticillium sp.
2666	Zoophthora radicans	2737	Beauveria bassiana	2811	Zoophthora radicans
2667	Entomophthora schizophorae	2738	Mixed culture	2812	Conidiobolus coronatus
2668	Entomophthora muscae	2739	Beauveria bassiana	2813	Conidiobolus coronatus
2670	Entomophthora muscae	2740	Mixed culture	2814	Conidiobolus coronatus
2671	Entomophaga sp.	2741	Metarhizium anisopliae	2815	Conidiobolus sp.
2672	Conidiobolus sp.				

2816	Conidiobolus sp.	2900	Entomophaga aulicæ	2973	Paecilomyces farinosus
2817	Aspergillus sp.	2901	Entomophaga aulicæ	2974	Metarhizium anisopliae var. anisopliae
2818	Aspergillus flavus	2902	Entomophaga aulicæ	2975	Paecilomyces farinosus
2819	Conidiobolus sp.	2903	Entomophaga aulicæ	2976	Beauveria bassiana
2820	Aspergillus sp.	2904	Entomophaga aulicæ	2977	Zoophthora radicans
2821	Unidentified	2905	Entomophaga aulicæ	2978	Zoophthora radicans
2822	Verticillium sp.	2906	Furia crustosa	2979	Zoophthora radicans
2824	Pandora blunckii	2909	Sporothrix insectorum	2980	Zoophthora radicans
2828	Conidiobolus thromboïdes	2910	Akanthomyces gracilis	2981	Metarhizium anisopliae
2829	Conidiobolus thromboïdes	2911	Tolypocladium cylindrosporum	2982	Metarhizium anisopliae
2830	Conidiobolus thromboïdes	2912	Tolypocladium cylindrosporum	2983	Beauveria bassiana
2831	Beauveria bassiana	2913	Pseudogibellula formicarum	2984	Beauveria bassiana
2832	Verticillium sp.	2914	Conidiobolus thromboïdes	2985	Beauveria bassiana
2833	Aspergillus flavus	2915	Stilbella buquetti	2986	Beauveria bassiana
2834	Penicillium sp.	2916	Verticillium lecanii	2987	Beauveria bassiana
2835	Paecilomyces farinosus	2917	Stilbella buquetti	2988	Beauveria bassiana
2836	Penicillium sp.	2918	Sporothrix insectorum	2989	Beauveria bassiana
2837	Pandora neoaphidis	2919	Akanthomyces gracilis	2990	Beauveria bassiana
2838	Pandora neoaphidis	2920	Tolypocladium cylindrosporum	2991	Beauveria bassiana
2839	Pandora neoaphidis	2921	Tolypocladium extingueens	2992	Hirsutella sp.
2840	Pandora neoaphidis	2922	Beauveria vermicina	2993	Hirsutella guyana
2841	Zoophthora occidentalis	2923	Verticillium lecanii	2994	Zoophthora radicans
2842	Pandora neoaphidis	2924	Conidiobolus sp.	2995	Zoophthora radicans
2843	Entomophaga aulicæ	2925	Conidiobolus sp.	2996	Zoophthora radicans
2844	Pandora neoaphidis	2926	Conidiobolus sp.	2997	Beauveria sp.
2845	Pandora neoaphidis	2927	Conidiobolus sp.	2998	Beauveria velata
2846	Pandora neoaphidis	2928	Conidiobolus sp.	2999	Unidentified
2847	Pandora neoaphidis	2929	Engyodontium aranearum	3000	Verticillium lecanii
2848	Pandora neoaphidis	2930	Verticillium lecanii	3001	Gliocladium roseum
2849	Conidiobolus thromboïdes	2931	Hirsutella rhossiliensis	3002	Zoophthora radicans
2850	Conidiobolus thromboïdes	2932	Hirsutella rhossiliensis	3003	Zoophthora radicans
2851	Pandora neoaphidis	2933	Hirsutella rhossiliensis	3004	Zoophthora radicans
2852	Pandora neoaphidis	2934	Arthrobotrys dactyloides	3005	Zoophthora radicans
2853	Pandora neoaphidis	2935	Engyodontium aranearum	3006	Zoophthora radicans
2854	Pandora neoaphidis	2936	Batko major	3007	Zoophthora radicans
2855	Pandora neoaphidis	2937	Paecilomyces farinosus	3008	Zoophthora radicans
2856	Pandora neoaphidis	2938	Beauveria bassiana	3009	Zoophthora radicans
2857	Beauveria bassiana	2939	Hirsutella sp. 1	3010	Zoophthora radicans
2858	Verticillium lecanii	2940	Hirsutella sp. 1	3011	Zoophthora radicans
2859	Verticillium lecanii	2941	Metarhizium anisopliae	3012	Zoophthora radicans
2860	Beauveria bassiana	2942	Beauveria bassiana	3013	Zoophthora radicans
2861	Beauveria bassiana	2943	Beauveria bassiana	3014	Aschersonia sp.
2862	Verticillium lecanii	2944	Beauveria bassiana	3015	Aschersonia sp.
2863	Stachybotrys sp.	2945	Beauveria bassiana	3016	Entomophaga aulicæ
2864	Beauveria bassiana	2946	Beauveria bassiana	3017	Paecilomyces farinosus
2865	Pandora neoaphidis	2948	Metarhizium flavoviride var. minus	3018	Beauveria bassiana
2866	Pandora neoaphidis	2949	Metarhizium anisopliae	3019	Beauveria bassiana
2867	Pandora neoaphidis	2950	Penicillium sp.	3020	Beauveria bassiana
2868	Pandora neoaphidis	2951	Metarhizium anisopliae	3021	Zoophthora radicans
2869	Beauveria bassiana	2952	Paecilomyces fumosoroseus	3022	Zoophthora radicans
2870	Pandora neoaphidis	2953	Beauveria bassiana	3023	Zoophthora radicans
2872	Pandora neoaphidis	2954	Paecilomyces farinosus	3024	Zoophthora radicans
2873	Pandora neoaphidis	2955	Conidiobolus thromboïdes	3025	Entomophaga macleodii
2874	Pandora neoaphidis	2956	Paecilomyces fumosoroseus	3026	Zoophthora radicans
2875	Pandora neoaphidis	2957	Beauveria bassiana	3027	Zoophthora occidentalis
2876	Pandora neoaphidis	2958	Paecilomyces amoenoroseus	3028	Zoophthora occidentalis
2877	Verticillium lecanii	2959	Paecilomyces amoenoroseus	3029	Zoophthora occidentalis
2878	Verticillium lecanii	2960	Paecilomyces amoenoroseus	3030	Fusarium sp.
2879	Beauveria bassiana	2961	Beauveria bassiana	3031	Fusarium sp.
2880	Beauveria bassiana	2962	Beauveria bassiana	3032	Fusarium sp.
2881	Beauveria bassiana	2963	Entomophaga praxibuli	3035	Verticillium ?cephalosporum
2882	Beauveria bassiana	2964	Entomophaga praxibuli	3036	Penicillium sp.
2883	Beauveria bassiana	2965	Entomophaga praxibuli	3037	Beauveria bassiana
2893	Zoophthora radicans	2966	Entomophaga praxibuli	3039	Entomophaga aulicæ
2894	Hirsutella rhossiliensis	2967	Entomophaga praxibuli	3040	Beauveria bassiana
2895	Sporodiniella umbellata	2968	Entomophaga praxibuli	3041	Beauveria bassiana
2896	Entomophaga aulicæ	2969	Entomophaga praxibuli	3042	Beauveria bassiana
2897	Entomophaga aulicæ	2970	Entomophaga praxibuli	3043	Metarhizium anisopliae
2898	Entomophaga aulicæ	2971	Paecilomyces farinosus	3044	Metarhizium anisopliae
2899	Entomophaga aulicæ	2972	Beauveria bassiana		

3045	Metarhizium anisopliae	3117	Zoophthora radicans	3182	Mixed culture
3047	Paecilomyces marquandii	3118	Zoophthora radicans	3183	Paecilomyces farinosus
3048	Aspergillus sp.	3119	Zoophthora radicans	3184	Paecilomyces farinosus
3049	Paecilomyces marquandii	3120	Beauveria bassiana	3185	Paecilomyces farinosus
3051	Fusarium sp.	3121	Beauveria bassiana	3186	Paecilomyces farinosus
3052	Entomophaga maimaiga	3122	Unidentified	3187	Metarhizium anisopliae var. anisopliae
3053	Entomophaga maimaiga	3123	Unidentified	3188	Paecilomyces fumosoroseus
3054	Beauveria brongniartii	3124	Unidentified	3189	Scopulariopsis sp.
3055	Beauveria bassiana	3125	Unidentified	3190	Metarhizium anisopliae var. anisopliae
3056	Metarhizium anisopliae	3126	Pandora neoaphidis	3191	Paecilomyces farinosus
3057	Metarhizium anisopliae	3127	Metarhizium anisopliae var. anisopliae	3192	Paecilomyces amoenoroseus
3058	Entomophaga praxibuli	3128	Unidentified	3193	Metarhizium anisopliae var. anisopliae
3059	Entomophaga praxibuli	3129	Conidiobolus thrombooides	3194	Metarhizium anisopliae var. anisopliae
3060	Entomophaga praxibuli	3130	Conidiobolus obscurus	3195	Aspergillus sp.
3061	Entomophaga praxibuli	3131	Conidiobolus obscurus	3196	Metarhizium anisopliae var. anisopliae
3062	Pandora delphacis	3132	Conidiobolus obscurus	3197	Beauveria bassiana
3063	Beauveria bassiana	3133	Conidiobolus obscurus	3198	Beauveria bassiana
3064	Metarhizium anisopliae	3134	Conidiobolus obscurus	3199	Beauveria bassiana
3065	Beauveria bassiana	3135	Conidiobolus obscurus	3200	Pandora blunckii
3066	Beauveria bassiana	3136	Conidiobolus thrombooides	3201	Pandora blunckii
3067	Entomophaga praxibuli	3137	Conidiobolus obscurus	3202	Pandora blunckii
3068	Entomophaga praxibuli	3138	Conidiobolus obscurus	3203	Scopulariopsis sp.
3069	Entomophaga praxibuli	3139	Conidiobolus obscurus	3204	Zoophthora radicans
3070	Beauveria bassiana	3140	Conidiobolus obscurus	3205	Zoophthora radicans
3071	Zoophthora occidentalis	3141	Conidiobolus obscurus	3206	Zoophthora radicans
3072	Pandora delphacis	3142	Sporothrix sp.	3207	Hirsutella rhossiliensis
3073	Zoophthora occidentalis	3143	Aspergillus niger	3208	Conidiobolus sp.
3074	Entomophthora muscae	3144	Aspergillus flavus	3209	Unidentified
3075	Pandora blunckii	3145	Metarhizium anisopliae var. majus	3210	Metarhizium anisopliae var. anisopliae
3076	Paecilomyces fumosoroseus	3146	Metarhizium anisopliae var. anisopliae	3211	Metarhizium anisopliae var. anisopliae
3077	Entomophaga macleodii	3147	Metarhizium anisopliae var. anisopliae	3212	Entomophaga aulicae
3078	Entomophaga macleodii	3148	Metarhizium anisopliae var. anisopliae	3213	Zoophthora radicans
3079	Entomophaga macleodii	3149	Zoophthora radicans	3214	Zoophthora radicans
3080	Conidiobolus obscurus	3150	Zoophthora radicans	3215	Beauveria bassiana
3081	Pandora neoaphidis	3151	Zoophthora radicans	3216	Beauveria bassiana
3082	Pandora neoaphidis	3152	Paecilomyces farinosus	3217	Zoophthora radicans
3083	Paecilomyces fumosoroseus	3153	Beauveria bassiana	3218	Fusarium acuminatum
3084	Paecilomyces sp. nov.	3154	Beauveria bassiana	3219	Beauveria bassiana
3085	Cladosporium cladosporioides	3155	Beauveria bassiana	3220	Beauveria bassiana
3086	Beauveria bassiana	3156	Beauveria bassiana	3221	Paecilomyces farinosus
3087	Conidiobolus coronatus	3157	Beauveria bassiana	3222	Conidiobolus coronatus
3088	Conidiobolus obscurus	3158	Beauveria bassiana	3223	Fusarium moniliforme var. intermedium
3089	Conidiobolus obscurus	3159	Zoophthora radicans	3224	Batko aliculata
3090	Conidiobolus obscurus	3160	Zoophthora radicans	3225	Batko aliculata
3091	Conidiobolus obscurus	3161	Zoophthora radicans	3226	Batko aliculata
3092	Conidiobolus obscurus	3162	Zoophthora radicans	3227	Unidentified
3093	Pandora delphacis	3163	Zoophthora radicans	3228	Unidentified
3094	Pandora delphacis	3164	Zoophthora radicans	3229	Unidentified
3095	Pandora delphacis	3165	Zoophthora radicans	3230	Unidentified
3096	Pandora delphacis	3166	Beauveria bassiana	3231	Unidentified
3098	Beauveria bassiana	3167	Beauveria bassiana	3232	Unidentified
3099	Conidiobolus obscurus	3168	Beauveria bassiana	3233	Unidentified
3100	Zoophthora radicans	3169	Beauveria bassiana	3234	Pandora neoaphidis
3101	Paecilomyces sp.	3170	Zoophthora radicans	3235	Unidentified
3102	Batko major	3171	Zoophthora radicans	3236	Unidentified
3103	Batko major	3172	Zoophthora radicans	3237	Pandora neoaphidis
3104	Zoophthora radicans	3173	Verticillium balanoides	3238	Pandora neoaphidis
3105	Zoophthora radicans	3174	Pandora neoaphidis	3239	Unidentified
3106	Pandora delphacis	3175	Pandora neoaphidis	3240	Pandora neoaphidis
3107	Pandora delphacis	3176	Aspergillus sp.	3241	Pandora neoaphidis
3108	Metarhizium anisopliae var. anisopliae	3177	Paecilomyces fumosoroseus	3242	Unidentified
3109	Conidiobolus coronatus	3178	Mixed culture	3243	Unidentified
3110	Entomophaga maimaiga	3179	Paecilomyces fumosoroseus		
3111	Beauveria bassiana	3180	Metarhizium anisopliae var. anisopliae		
3112	Beauveria bassiana	3181	Beauveria bassiana		
3113	Beauveria bassiana				
3114	Zoophthora radicans				
3115	Zoophthora radicans				
3116	Zoophthora radicans				

3244 Unidentified	3306 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3363 <i>Conidiobolus thromboides</i>
3245 Unidentified	3307 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3364 <i>Conidiobolus thromboides</i>
3246 Unidentified	3308 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3365 <i>Pandora neoaphidis</i>
3247 Unidentified	3309 <i>Beauveria bassiana</i>	3366 <i>Pandora neoaphidis</i>
3248 <i>Pandora neoaphidis</i>	3310 <i>Beauveria bassiana</i>	3367 <i>Pandora neoaphidis</i>
3249 <i>Pandora neoaphidis</i>	3311 <i>Beauveria bassiana</i>	3368 Unidentified
3250 <i>Pandora neoaphidis</i>	3312 <i>Beauveria bassiana</i>	3369 <i>Arthrobotrys oligospora</i> var. <i>oligospore</i>
3251 <i>Pandora neoaphidis</i>	3313 <i>Paecilomyces fumosoroseus</i>	3370 <i>Arthrobotrys oligospora</i> var. <i>oligospore</i>
3252 <i>Verticillium lecanii</i>	3314 <i>Verticillium lecanii</i>	3371 <i>Arthrobotrys dactyloides</i>
3253 <i>Verticillium lecanii</i>	3315 <i>Verticillium ?lecanii</i>	3372 <i>Arthrobotrys dactyloides</i>
3254 <i>Verticillium lecanii</i>	3316 <i>Verticillium ?lecanii</i>	3373 <i>Arthrobotrys dactyloides</i>
3255 <i>Verticillium lecanii</i>	3317 <i>Verticillium ?lecanii</i>	3374 Unidentified
3257 <i>Verticillium lecanii</i>	3318 <i>Verticillium lecanii</i>	3375 <i>Cladosporium cladosporioides</i>
3258 <i>Verticillium lecanii</i>	3319 Unidentified	3376 <i>Zoophthora radicans</i>
3259 <i>Verticillium lecanii</i>	3320 <i>Tolypocladium niveum</i>	3377 <i>Zoophthora radicans</i>
3260 <i>Verticillium lecanii</i>	3321 <i>Tolypocladium niveum</i>	3378 Unidentified
3261 <i>Verticillium lecanii</i>	3322 <i>Paecilomyces fumosoroseus</i>	3379 <i>Conidiobolus coronatus</i>
3262 <i>Verticillium lecanii</i>	3323 <i>Hirsutella thompsonii</i>	3380 Unidentified
3263 <i>Verticillium lecanii</i>	3324 <i>Verticillium lecanii</i>	3381 Unidentified
3264 <i>Verticillium lecanii</i>	3325 <i>Aspergillus ochraceus</i>	3382 <i>Fusarium</i> sp.
3265 <i>Verticillium lecanii</i>	3326 <i>Lagenidium giganteum</i>	3383 <i>Conidiobolus</i> sp.
3266 <i>Verticillium lecanii</i>	3327 <i>Lagenidium giganteum</i>	3384 <i>Conidiobolus</i> sp.
3267 <i>Verticillium lecanii</i>	3329 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3385 <i>Beauveria bassiana</i>
3268 <i>Verticillium lecanii</i>	3330 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3386 <i>Beauveria bassiana</i>
3269 <i>Verticillium lecanii</i>	3331 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3387 <i>Beauveria bassiana</i>
3270 <i>Verticillium lecanii</i>	3332 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3388 <i>Metarhizium anisopliae</i>
3271 <i>Tolypocladium geodes</i>	3333 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3389 <i>Metarhizium anisopliae</i>
3272 <i>Tolypocladium geodes</i>	3334 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3390 <i>Zoophthora radicans</i>
3273 <i>Tolypocladium geodes</i>	3335 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3391 <i>Metarhizium flavoviride</i>
3274 <i>Tolypocladium geodes</i>	3336 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3392 <i>Tolypocladium cylindrosporum</i>
3275 <i>Tolypocladium geodes</i>	3337 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3393 <i>Tolypocladium cylindrosporum</i>
3276 <i>Tolypocladium geodes</i>	3338 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3394 <i>Tolypocladium niveum</i>
3277 <i>Tolypocladium niveum</i>	3339 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3395 <i>Tolypocladium niveum</i>
3278 <i>Tolypocladium niveum</i>	3340 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3396 <i>Tolypocladium niveum</i>
3279 <i>Tolypocladium niveum</i>	3341 <i>Metarhizium flavoviride</i> var. <i>minus</i>	3398 <i>Tolypocladium niveum</i>
3280 <i>Tolypocladium niveum</i>	3342 <i>Zoophthora phytomii</i>	3399 <i>Tolypocladium tundrense</i>
3281 <i>Tolypocladium niveum</i>	3343 <i>Zoophthora phytomii</i>	3400 <i>Tolypocladium tundrense</i>
3282 <i>Strongwellsea castrans</i>	3344 <i>Zoophthora phytomii</i>	3401 <i>Tolypocladium tundrense</i>
3283 <i>Zoophthora radicans</i>	3345 <i>Fusarium</i> sp.	3402 <i>Conidiobolus</i> sp.
3284 <i>Zoophthora radicans</i>	3346 <i>Drechmeria coniospora</i>	3403 <i>Beauveria bassiana</i>
3285 <i>Beauveria bassiana</i>	3347 <i>Arthrobotrys oligospora</i>	3404 <i>Beauveria bassiana</i>
3286 <i>Beauveria bassiana</i>	3348 <i>Monacrosporium ellipsosporum</i>	3405 <i>Beauveria bassiana</i>
3287 <i>Beauveria bassiana</i>	3349 <i>Monacrosporium cionopagum</i>	3406 <i>Conidiobolus</i> sp.
3288 <i>Beauveria bassiana</i>	3350 <i>Verticillium balanoides</i>	3407 <i>Conidiobolus</i> sp.
3289 <i>Beauveria</i> sp.	3351 <i>Nematoctonus</i> sp.	3408 <i>Paecilomyces fumosoroseus</i>
3290 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3352 <i>Nematoctonus</i> sp.	3409 <i>Conidiobolus</i> sp.
3291 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3354 <i>Drechmeria coniospora</i>	3410 <i>Pandora neoaphidis</i>
3292 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3355 <i>Zoophthora radicans</i>	3411 <i>Pandora neoaphidis</i>
3293 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3356 <i>Entomophaga praxibuli</i>	3412 <i>Pandora neoaphidis</i>
3294 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3357 <i>Entomophaga praxibuli</i>	3413 Unidentified
3295 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3358 <i>Entomophaga praxibuli</i>	3414 <i>Conidiobolus coronatus</i>
3296 <i>Fusarium</i> sp.	3359 <i>Conidiobolus thromboides</i>	3415 <i>Conidiobolus coronatus</i>
3297 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3360 <i>Conidiobolus thromboides</i>	3416 <i>Verticillium psalliotiae</i>
3298 Unidentified	3361 <i>Conidiobolus thromboides</i>	3417 Unidentified
3299 Unidentified	3362 <i>Conidiobolus thromboides</i>	3418 <i>Verticillium lecanii</i>
3300 <i>Fusarium</i> sp.		3419 Unidentified
3301 <i>Nomuraea rileyi</i>		3420 Unidentified
3302 <i>Paecilomyces fumosoroseus</i>		3421 Unidentified
3303 <i>Paecilomyces javanicus</i>		3422 Unidentified
3304 Unidentified		3423 Unidentified
3305 <i>Metarhizium anisopliae</i> var. <i>anisopliae</i>		3424 Unidentified

3432	Tolyocladium niveum	3502	Paecilomyces farinosus	3572	Paecilomyces farinosus
3433	Tolyocladium niveum	3503	Paecilomyces farinosus	3573	Paecilomyces farinosus
3434	Tolyocladium nubicola	3504	Paecilomyces farinosus	3574	Paecilomyces farinosus
3435	Tolyocladium nubicola	3505	Paecilomyces farinosus	3575	Paecilomyces farinosus
3436	Tolyocladium parasiticum	3506	Paecilomyces farinosus	3576	Paecilomyces farinosus
3437	Beauveria bassiana	3507	Paecilomyces farinosus	3577	Paecilomyces farinosus
3438	Beauveria bassiana	3508	Paecilomyces farinosus	3578	Paecilomyces farinosus
3439	Beauveria bassiana	3509	Hirsutella brownorum	3579	Paecilomyces farinosus
3440	Unidentified	3510	Beauveria sp.	3580	Paecilomyces farinosus
3441	Beauveria bassiana	3511	Paecilomyces lilacinus	3581	Paecilomyces farinosus
3442	Beauveria bassiana	3512	Paecilomyces lilacinus	3582	Paecilomyces farinosus
3443	Beauveria bassiana	3513	Beauveria bassiana	3583	Paecilomyces farinosus
3444	Beauveria bassiana	3514	Beauveria bassiana	3584	Paecilomyces farinosus
3445	Beauveria bassiana	3515	Beauveria bassiana	3585	Paecilomyces farinosus
3446	Beauveria bassiana	3516	Beauveria bassiana	3586	Paecilomyces farinosus
3447	Beauveria bassiana	3517	Paecilomyces farinosus	3587	Paecilomyces farinosus
3448	Beauveria bassiana	3518	Paecilomyces farinosus	3588	Paecilomyces farinosus
3449	Beauveria bassiana	3519	Paecilomyces farinosus	3589	Paecilomyces farinosus
3450	Beauveria bassiana	3520	Paecilomyces farinosus	3590	Paecilomyces farinosus
3451	Beauveria bassiana	3521	Paecilomyces farinosus	3591	Paecilomyces farinosus
3452	Beauveria bassiana	3522	Paecilomyces farinosus	3592	Paecilomyces farinosus
3453	Beauveria bassiana	3523	Paecilomyces farinosus	3593	Paecilomyces farinosus
3454	Beauveria bassiana	3524	Paecilomyces farinosus	3594	Paecilomyces farinosus
3455	Beauveria bassiana	3525	Paecilomyces farinosus	3595	Paecilomyces farinosus
3456	Beauveria bassiana	3526	Paecilomyces farinosus	3596	Paecilomyces farinosus
3457	Beauveria bassiana	3527	Beauveria bassiana	3597	Paecilomyces farinosus
3458	Paecilomyces fumosoroseus	3528	Beauveria bassiana	3598	Paecilomyces farinosus
3459	Pandora neoaphidis	3529	Beauveria bassiana	3599	Paecilomyces farinosus
3460	Beauveria bassiana	3530	Beauveria bassiana	3600	Verticillium lecanii
3461	Paecilomyces farinosus	3531	Verticillium sp.	3601	Verticillium lecanii
3462	Beauveria bassiana	3532	Fusarium sp.	3602	Entomophaga aulicae
3463	Cladosporium cladosporioides	3533	Paecilomyces farinosus	3603	Metarhizium anisopliae
3464	Verticillium lecanii	3534	Beauveria bassiana	3604	Metarhizium anisopliae
3466	Unidentified	3535	Unidentified	3605	Metarhizium anisopliae
3467	Unidentified	3536	Unidentified	3606	Metarhizium flavoviride
3468	Unidentified	3537	Paecilomyces farinosus	3607	Beauveria bassiana
3469	Paecilomyces lilacinus	3538	Paecilomyces farinosus	3608	Metarhizium anisopliae
3470	Unidentified	3539	Verticillium sp.	3609	Metarhizium anisopliae
3471	Unidentified	3540	Metarhizium anisopliae	3610	Metarhizium anisopliae
3472	Mixed culture	3541	Metarhizium anisopliae	3611	Metarhizium anisopliae
3473	Unidentified	3542	Metarhizium anisopliae	3612	Metarhizium sp.
3474	Unidentified	3543	Beauveria bassiana	3613	Metarhizium sp.
3475	Unidentified	3544	Metarhizium anisopliae	3614	Metarhizium sp.
3476	Unidentified	3545	Paecilomyces sp.	3615	Metarhizium sp.
3477	Unidentified	3546	Hirsutella sp.	3616	Metarhizium sp.
3478	Unidentified	3547	Verticillium sp.	3617	Metarhizium sp.
3479	Metarhizium anisopliae var. anisopliae	3548	Hirsutella sp.	3618	Metarhizium sp.
3480	Paecilomyces fumosoroseus	3549	Verticillium sp.	3619	Metarhizium anisopliae
3481	Paecilomyces lilacinus	3550	Verticillium sp.	3620	Beauveria bassiana
3482	Hirsutella thompsonii	3551	Verticillium sp.	3621	Metarhizium anisopliae
3483	Fusarium sambucinum	3552	Verticillium sp.	3622	Beauveria bassiana
3484	Pandora delphacis	3553	Hirsutella sp.	3623	Zoophthora radicans
3485	Strongwellsea castrans	3554	Verticillium lecanii	3624	Unidentified
3486	Zoophthora sp.	3555	Verticillium lecanii	3625	Unidentified
3487	Zoophthora sp.	3556	Verticillium sp.	3626	Unidentified
3488	Zoophthora sp.	3557	Verticillium lecanii	3627	Unidentified
3489	Zoophthora radicans	3558	Verticillium lecanii	3628	Unidentified
3490	Paecilomyces farinosus	3559	Verticillium lecanii	3629	Unidentified
3491	Paecilomyces farinosus	3560	Unidentified	3630	Unidentified
3492	Paecilomyces farinosus	3561	Verticillium sp.	3631	Unidentified
3493	Paecilomyces farinosus	3562	Verticillium lecanii	3632	Unidentified
3494	Paecilomyces farinosus	3563	Verticillium lecanii	3633	Unidentified
3495	Paecilomyces farinosus	3564	Paecilomyces farinosus	3634	Unidentified
3496	Paecilomyces farinosus	3565	Metarhizium anisopliae	3635	Unidentified
3497	Paecilomyces farinosus	3566	Paecilomyces sp.	3636	Unidentified
3498	Paecilomyces farinosus	3567	Unidentified	3637	Unidentified
3499	Paecilomyces farinosus	3568	Unidentified	3638	Unidentified
3500	Paecilomyces farinosus	3569	Unidentified	3639	Unidentified
3501	Paecilomyces farinosus	3570	Unidentified	3640	Unidentified
		3571	Unidentified	3641	Unidentified

3642 Unidentified	3713 Metarhizium anisopliae
3643 Unidentified	3714 Unidentified
3644 Unidentified	3715 Unidentified
3645 Unidentified	3716 Beauveria bassiana
3646 Unidentified	3717 Beauveria bassiana
3647 Unidentified	3718 Cordyceps sp.
3648 Unidentified	3719 Unidentified
3649 Unidentified	3720 Metarhizium anisopliae
3650 Unidentified	3721 Metarhizium anisopliae
3651 Unidentified	3722 Unidentified
3652 Unidentified	3723 Monacrosporium ellipsosporum
3653 Unidentified	3724 Unidentified
3654 Unidentified	3725 Unidentified
3655 Unidentified	3726 Unidentified
3656 Unidentified	3727 Unidentified
3657 Unidentified	3728 Unidentified
3658 Paecilomyces farinosus	3729 Unidentified
3659 Paecilomyces farinosus	3730 Arthrobotrys musiformis
3660 Paecilomyces farinosus	3731 Monacrosporium ellipsosporum
3661 Paecilomyces farinosus	3732 Arthrobotrys oligospora
3662 Paecilomyces farinosus	3733 Arthrobotrys dactyloides
3663 Paecilomyces farinosus	3734 Beauveria bassiana
3664 Paecilomyces farinosus	3735 Unidentified
3665 Paecilomyces farinosus	3736 Podonectria coccicola
3666 Paecilomyces farinosus	
3667 Beauveria bassiana	
3668 Fusarium sp.	
3669 Fusarium sp.	
3670 Fusarium sp.	
3671 Fusarium sp.	
3672 Fusarium sp.	
3673 Fusarium sp.	
3674 Fusarium sp.	
3675 Fusarium sp.	
3676 Fusarium sp.	
3677 Fusarium sp.	
3678 Fusarium sp.	
3679 Fusarium sp.	
3680 Aphanocladium album	
3681 Beauveria bassiana	
3682 Paecilomyces fumosoroseus	
3683 Verticillium lecanii	
3684 Verticillium lecanii	
3685 Verticillium lecanii	
3686 Verticillium lecanii	
3687 Verticillium lecanii	
3688 Verticillium lecanii	
3689 Verticillium lecanii	
3690 Verticillium lecanii	
3691 Verticillium lecanii	
3692 Fusarium polypheidicum	
3693 Fusarium polypheidicum	
3694 Fusarium polypheidicum	
3695 Fusarium polypheidicum	
3696 Fusarium polypheidicum	
3698 Aspergillus sp.	
3699 Paecilomyces fumosoroseus	
3700 Paecilomyces fumosoroseus	
3701 Verticillium lecanii	
3702 Sterile mycelium	
3703 Sterile mycelium	
3704 Fusarium sp.	
3705 Sterile mycelium	
3706 Cladosporium sp.	
3707 Fusarium sp.	
3708 Trichothecium roseum	
3709 Verticillium lecanii	
3710 Sterile mycelium	
3711 Sterile mycelium	
3712 Sterile mycelium	









